

HOP-UP

**BENELLI
175 TEST**

**HONDA XL-250
PROJECT**

**BULTACO
EL TIRON
IMPRESSION**

**THE
COLORADO
MILE**

**PONY
EXPRESS
TRAILS**

VAN PATTERNS

YAMAHA 350 TEST



BOREV the serious enthusiast's suit

Manufactured from "TRAILEX"®, a space age fabric,
American made under strict Full Bore specifications.



YANKEE
P.O. Box 88 • Schenectady, New York 12301
9420 E. Franklin Ave. • Harbor City, Calif. 90710
© A. Zanussi, Porta Comati



WE BELONG

MODERN CYCLE

VOL. 8, NO. 8 AUGUST

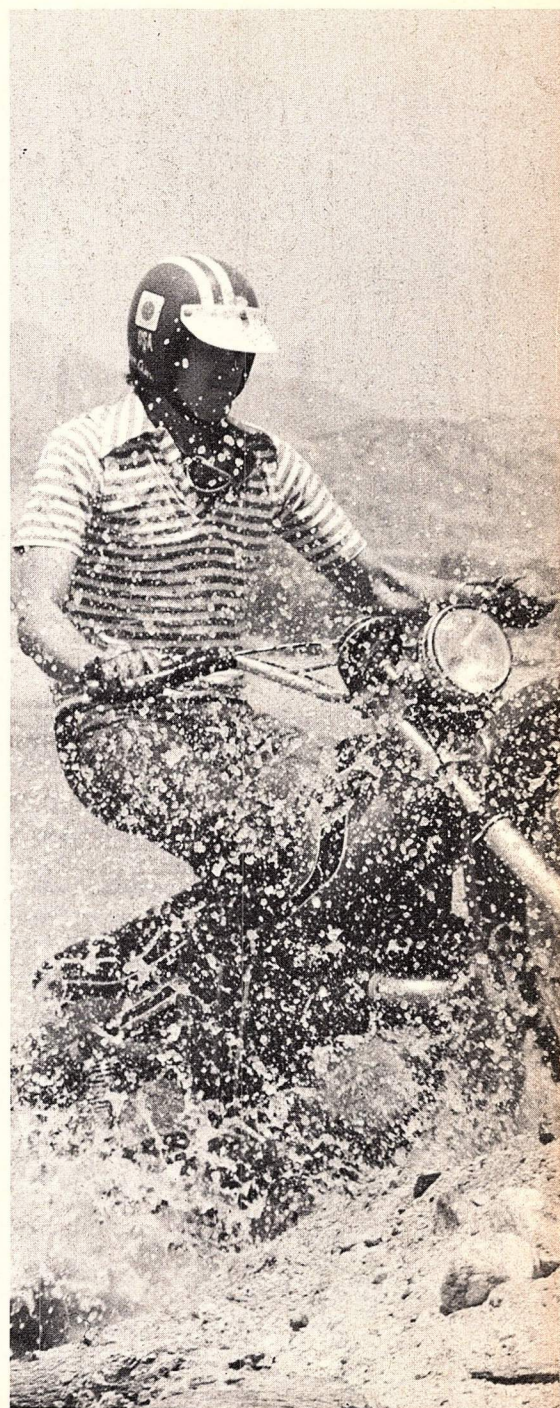
A BLAST FROM THE PUBLISHER	4
EUROPEAN SCENE	6
LETTERS FROM THE TROOPS	8
THE COLORADO MILE	10
PROJECT: HONDA XL-250 MX	14
VAN PATTERNS	17
UP ON THE PEGS	21
DESERT MOTORCYCLE ADVENTURE	22
IMPRESSION: THE BULTACO TIRON	27
NEW PRODUCTS	30
TAME SUZUKI'S WILD TM400	32
TEST: YAMAHA'S R5C	37
NUTS & BOLTS	42
TEST: THE BENELLI ENDURO	45
TEST: OSSA'S PIONEER	50
POWDER PUFF POWER	57
PRODUCT EVALUATION: SAFETY EQUIPMENT	59
YAMAHA CT-2 HOP-UP	61
CB-750 OIL COOLER	68
CONVERT-O-POWER	71
ACTION PHOTO CONTEST	74
THE LADY LOVES TO RIDE	77
MISS MODERN CYCLE	81

GORDON KARREL • PUBLISHER
 DAVE EKINS • EDITOR
 JEANNE ALLEN • ASSOCIATE EDITOR
 RON HARPER • ART DIRECTOR
 ROBERT LEE • ADVERTISING SALES
 JERRY STANFIELD • CIRCULATION MANAGER
 DIANA NOBLE • READER SERVICE



CONTRIBUTORS: Gary Tomei — Mike Hodgins — John Larson — Yukio Kuroda —
 Dan Mahoney — Bill Delaney — Eric Raits — Dennis Greene —
 George Hays — Roger Hull

MODERN CYCLE MAGAZINE is published monthly by MODERN CYCLE PUBLISHING, INC., 7950 Deering Avenue, Canoga Park, California 91304. Telephone (213) 887-0550. Copyright ©1972 by MODERN CYCLE PUBLISHING, INC. All rights reserved on entire contents; nothing may be reprinted, in whole or in part, without written permission of the publisher. Not responsible for unsolicited material. Manuscripts, photographs and drawings not returned unless accompanied by a stamped, self-addressed envelope. Single copies 75¢. Subscriptions \$7.50 for 12 issues (one year), \$14.00 for 24 issues (two years). Printed in U.S.A. Second class postage paid at Canoga Park, California and at Sparta, Illinois.



A BLAST FROM THE PUBLISHER



A STEP BACKWARDS?

A press release recently received from the AMA indicated that the Spring Congress of the FIM has passed legislation which would eliminate the special machines that result in factory domination in International moto cross competition. The Technical Commission of the FIM has established strict weight and material specifications for motorcycles entered in International moto cross events after January 1, 1973.

The new legislation includes three provisions. Moto cross machines entered in International events must adhere to a minimum weight, the use of titanium is prohibited, and no ballast may be used to raise the weight of the motorcycle during weigh-in. Moto cross bikes of 125cc displacement must weigh no less than 176.40 pounds, 250cc machines must weigh no less than 194.04 pounds, and 500cc machines must weigh no less than 209.47 pounds.

The Technical Commission of the FIM, using safety as their reason, barred the use of titanium in areas of the motorcycle vulnerable to extreme bending forces. Competitors would be allowed to cut weight by using titanium bolts but would be prohibited in using the material in handlebars, frame, or swinging arm. To insure that competitors will not circumnavigate the regulation, the Commission prohibited the use of ballast to increase the weight of the machine.

The AMA press release pointed out that in recent World Championship

events some factories feel that one-off motorcycles built of special alloys weigh as much as 50 pounds less than their production counterparts. The press release added that the Technical Commission felt that this practice was undesirable in that it was unfair to privateers as well as unsafe since many riders cut or drill their frames in an effort to match the weight of the factory specials.

Obviously, though the name is not mentioned, the super light one-off motorcycles referred to are those fielded by Suzuki. The plan to establish minimum weights for International caliber motor cross machines did not just happen. A person, or persons, had to make the original suggestion to limit weight. It comes as no real surprise that the weight limitations were proposed by FIM delegates from Czechoslovakia and Sweden. Keeping in mind the brands of motorcycles manufactured in these two countries, it appears that someone has come up with a theory that, "If you can't beat them on the race course you might be able to slow them down with changes in the rule book."

Moto cross racing, particularly in Europe, is frequently referred to as a circus. The word circus in this case is not used in a discouraging manner; it describes the general atmosphere

which surrounds International moto cross events. Vast crowds attend to watch the best riders in the world wring maximum performance out of the best machines in the world. No knowledgeable moto cross fan believes that the bikes ridden by Bengt Aberg, or Jiri Stodulka, or Joel Robert bear the slightest resemblance to "production" machines. The top stars ride works machines and the public purchases "replicas." These are the facts of life in moto cross racing.

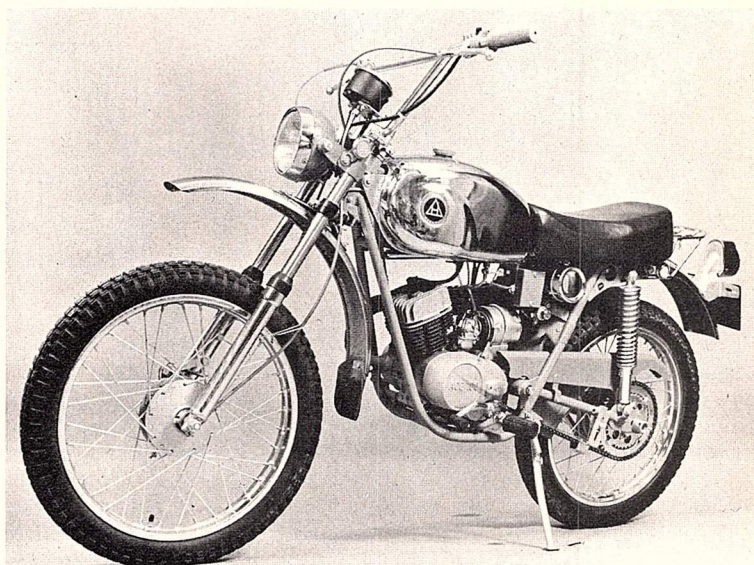
The FIM's contention that there should be some resemblance between works bikes and their production counterparts is ridiculous. Equally ridiculous is the FIM's stated intent to make the sport of moto cross racing fairer for the privateers. The privateers have little chance of winning, and even they admit it. Finally, the rule barring the use of titanium on grounds that it is an unsafe metal, is equally ill conceived. Titanium, a very sophisticated metal, is used in some very exotic applications. No one has yet to prove that it is unsafe when used for a motorcycle chassis.

It seems to me that the Technical Commission of the FIM has taken a step to slow the development of the moto cross motorcycle. It also seems to me that the Czechoslovakian and Swedish motorcycle industries might devote their time and effort to developing ever more sophisticated machines instead of asking their delegates to the FIM to propose rulings which have seriously impaired the development of the moto cross racing machine. ●

Gordon Karmel.

Why are there more old Hodakas in the field than new ones?

Is it because quality craftsmanship and built-in durability make Hodaka last longer?



Hodaka's latest model, the "B+".
A product of nine years of planning ahead.

A motorcycle is an investment, and Hodaka costs a little more than some others of equal displacement. But a knowledgeable buyer expects that of a quality, hand-crafted machine. Unlike a car . . . it's easier to see what you get for your money.

Take a good long look at Hodaka and see what we mean by hand craftsmanship. This is not a mass-produced, stamped out, assembly line "quickie". It's a "planned ahead", hand made, quality motorcycle. And in Cycle magazine's recent readers' survey, we discover that Hodaka out-sold every European model on the market.

Hodakas are designed in a little Oregon town that's nestled up against the Blue Mountains. It

could be rural anywhere. Life is unhurried in Athena. That's probably why Hodaka's that way.

There's plenty of time to concentrate on designing an excellent motorcycle . . . to plan ahead so it won't be obsolete in six months and to engineer it so new parts fit old Hodakas. Nearly 100,000 Hodakas have been hand made over the last nine years and we can make everyone of them run today. We're as proud of our old Hodakas as we are of our new ones.

Hodaka owners come in all sizes. We planned for that by making Hodaka adjustable. For example, the footpegs adjust to fit foot length so that the shift lever isn't too close or too far away. No baloney stuff like removing your

foot from the peg to make a shift or apply the brake. Try the seat. It's comfortable and long enough for tall riders. It'll give you a better disposition at the end of a long ride.

We don't forget you after you buy Hodaka. We, and a long list of manufacturers offer more accessories to fit Hodaka than any other model. Once you register your Hodaka with us, we'll send you information about new accessories, technical improvements, tuning technique and any information we can . . . adding to the years of pleasure you'll get riding Hodaka.

Hodaka has tens of thousands of salesmen all over this continent. They ride Hodakas. Talk to one of them and realize the conviction they hold for this motorcycle.



Designed and imported by PABATCO, Athena, Oregon 97813
Canadian inquiries: Gemini Ind. Ltd., 2525 Stephens St., Vancouver, B. C.
Australian inquiries:
Minilya Pty. Ltd., P. O. Box 209, S. Melbourne, Australia 3205

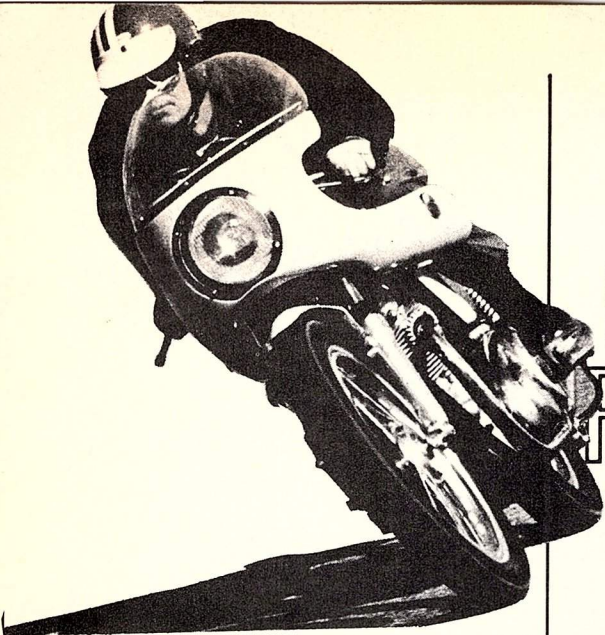
For a copy of our booklet "The Hodaka Story" and the address of your nearest dealer, send 25¢ to PABATCO, 872 Upper Sherman Road, Athena, Oregon. 97813

Name.....

Address.....

City.....

State..... Zip.....



THE european RACING GAME

It was amusing to read a "profile" write-up of World Moto Cross Champion Joel Robert in an American monthly which gave the impression that this youth had strayed from the Sunday school teacher profession. But, those who have followed this worthy's career remember the oft released expressions of violent temper displays which we were later told were part of his growing up, and that now married he had settled into the staid likeable boy grown up. However, some throw back must have come about as during the Spanish first round of the 1972 World Series fellow countryman Gaston Rahier, had the audacity to get in the path of the overtaking Robert, who never thought that Rahier would do other than move out of the way, promptly and with much force, piled into the rear of Rahier bringing both to the very muddy earth. When Rahier made to assist the Champion to get mobile again he was met with much unkind and forceful language and physical assault. His temper not subsiding, he withdrew from the race leaving teammate Sylvain Geboers to take the overall win.

The early Championship rounds were raced in very wet and miserable conditions which had not improved when the American pair, Bob Grossi and Mark Blackwell, turned out for the 500cc round in Austria. These Rolf Tibblin-trained pair were soon floundering in the glutinous mud and joined the many other stars who either retired or tailed the depleted entry. Winner was Belgian Roger De Coster, 370cc Suzuki, with Willie Bauer (Maico), and Ake Jonsson (Maico), second and third. In conditions where leg power was in constant use Andy Roberton, who is short in the leg, put up a good show on his Husky to finish sixth overall. It is reported that the U.S. entry will only contest five of the series and will return home to ride the more lucrative National Championships. This surely was

not the intention of the sponsors of the American team; the full series has to be contested in order to gain the maximum publicity in the various host countries in which the Championships are held, and also to gain the so needed experience by riding against the world's best. The U.S.-based Trans-Am and Edison Dye Husky circus series never provided the full opposition in depth of the European stars. Those who went to the U.S. were, after all, not after Championship points, and so the series was pure exhibition stuff and a chance of taking home a few bags of loot.

The big major road race of the early season was the Shell 200 miler at Imola in Italy. So much sponsor money had been thrown into the kitty that all the top works riders and factories made it a 'must' to appear. Much conjecture and prophesy was bandied about before the event—Giacomo Agostini before his home crowd on the 750cc MV4 was, of course, booked as winner with his bank manager on hand to get the rewards safely stacked into the bank vaults. Then to share in the payout was stalwart Ray Pickrell (Laverda), Villa (Tri-3), Croxford Seeley (BSA 3), Grassetti (Honda 4), Grant (Suzuki), Brambilla (Guzzi), Offenstadt (Kawasaki). Then to make up the entry Paul Smart and Bruno Spaggiari on 750cc Ducati's filled in the gaps. Rank outsiders of course . . . but there were some very red faces at the check flag when the above outsiders came in first and second. Smart took first by less than a bike length. Ducati chief Fredmano Spairani was so pleased that he made a present of the winning Ducati to Smart who also took loot away to the tune of some ten thousand dollars plus, which should gladden the heart of his country's tax collector. Percy Tait who is employed by Triumph had no chance of his firm's product for the Imola meet, and, at his own expense, had the offer of one of the Ducati's but turned it down for the

experimental Triumph. At one point it took him past Agostini into third place, but his titanium rear hub began to break up and that was the end. So, to add to the growing number of factories supporting this 750 class Ducati.

As a result of the FIM Sports Committee meeting held in April, the previously rejected British proposal, that in the World Moto Series points should be gained in both the races of the moto cross and not based on the overall finishing in the two legs, was reviewed and recommended for acceptance. The broad meaning is that a rider winning the first leg or being placed yet failing in the second will not as at present be pointless.

The International team events, the 250 and 500 Trophy des Nations, will have the team entry cut from five to four riders.

The Ulster Grand Prix, which for many years rated the title of the fastest road race in the world, has been cancelled due to the unhappy internal violence in Northern Ireland.

With the U.S. hosting the International Six Days Trial in 1973 comes news that the 500cc moto cross GP in the same year will be granted World Championship status.

Already, dozens of U.S. riders are seeking entries in the I.S.D.T., but national teams have priority leaving less for private entries. Every year many entries have to be refused. The only hope these U.S. riders have (apart from having a good enduro record or placings in such as the Berkshire Two-Day Trial), is to try and get entry support from one of the European manufacturers who would thus save on the expense of sending a European rider and, at the same time, have a rider who had national experience. Makers of Six Days Trial ironware are getting few on the ground and already have their own riders under contract, and so the likely entrant may be advised to cast his beady eyes over the moto cross machines available. Husqvarna have, with success, converted its basic moto machines into something worthwhile. Another make which comes to mind and has been suggested is a de-tuned version of the big 380 Greeves which at present is imported into the U.S. in enduro form and could be easily converted into potent Six Days machinery, with its massive finned cylinder, big ground clearance, and up and over exhaust system (single port on the 1972 Q.U.B. model) and the big C.Z. is another potential candidate having the rugged character to stay the six days of tough going.

The big trials event of the early season is the Scottish Six Day Trials which any rider or manufacturer with

(Text continued on page 26)

Some bikes you ride for a year or two. Ours, for a generation or two.



So the experts feel.

Recently our CZ 175 trail bike was road tested by the editors of Motorcycle World. Here's what they said:

"When you decide on a CZ trail bike you'd better not be fickle, because unless you ride it off a pier, it's going to last a long, long time. From past experience with CZ motocross models we know they are unexcelled for craftsmanship and materials."

Strong words. But then we make strong trail bikes — the 175 CZ and the Jawa 90.

Do you have a friend who really knows motorcycles? Ask him about Jawa-CZ. Ask him who builds the most rugged off-the-road machines in the world.

Since 1947 Jawa-CZ has won 32 world titles **using stock bikes only**. Few people know this. Or that most Grand Prix racers use CZ chains and our Barum tires.

Or that Jawa-CZ is the only manufacturer that test rides each bike before it's shipped. Or the only one who tells you the horsepower actually measured at the rear wheel . . . rather than the horsepower the engine is "designed" to produce.

Your first bike doesn't have to be a "little Honda." For perhaps even less money you can start with the bike serious riders prefer.

Fill out and mail the coupon. We'll be happy to send you detailed fact sheets.

American Jawa Ltd.
3745 Overland Ave.
Los Angeles, Ca. 90034

MC872

Gentlemen: Please send me fact sheets on the following models.

- ☐ Trail — 90cc, 175cc
- ☐ Motocross — 125cc, 250cc, 400cc
- ☐ Street — 50cc, 175cc, 250cc, 350cc
- ☐ Speedway — 500cc

Name _____

Street _____

City _____

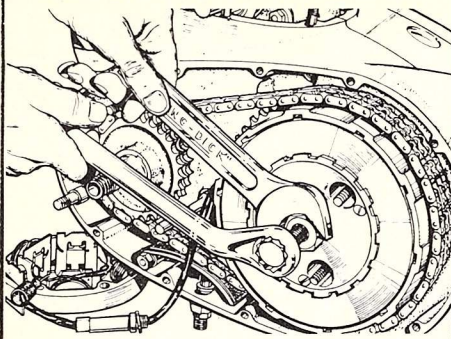
State _____ Zip _____

JAWA·CZ

AMERICAN JAWA, LTD.

WEST: 3745 Overland Ave., Los Angeles, Ca. 90034,
EAST: 185 Express St., Plainview, Long Island, N.Y. 11803
CANADA: Skoda & Jawa Motors Canada Ltd.
7600 Trans-Canada Hwy., Montreal 377 Ca.

KNOW YOUR BIKE



inside-out

Know how to tune it . . . to fix it . . . to rebuild it yourself. The TOTAL SERVICE MANUAL for your bike will show you how to do everything from a minor adjustment to a major overhaul.

TOTAL SERVICE MANUALS are digests of official factory workshop manuals. Each one is carefully rewritten for use by the do-it-yourself bike owner. Clear and easy to follow, yet complete and detailed enough even for professional use. You get all the important information plus hundreds of the best pictures, diagrams, and specification tables.

TOTAL SERVICE MANUALS

3725 BSA—all models to 68	\$4.95
3727 BRIDGESTONE—inc. 50, 60, 90 & 125	\$3.50
3728 DUCATI—covers 160, 250 & 350 models	\$4.00
3729 HARLEY-DAVIDSON—XL, XLH, XLCH & FL	\$4.95
3788 HONDA 50, 65, 70, 90—all models—64-71	\$5.50
3751 HONDA 125-350—64-71	\$5.50
3752 HONDA Scrambler, Dream, Superhawk—62-68	\$4.50
3749 HONDA 450—65-71	\$4.50
3755 HONDA 750	\$5.50
3754 KAWASAKI 1-cyl—90-350—through 71	\$5.50
3791 KAWASAKI 2 & 3-cyl—250-500	\$5.50
3731 NORTON—inc. Atlas, Scrambler, Electra	\$3.00
3790 SUZUKI 1-cyl—50-400	\$5.50
3753 TRIUMPH 500 & 650—63-71	\$5.50
3747 YAMAHA 1-cyl models	\$4.50
3748 YAMAHA 1-cyl "Enduro"	\$4.50
3787 YAMAHA 2-cyl—90-350—64-71	\$4.50
3739 ITALIAN MOTORCYCLES—all makes imported	\$5.50

PERFORMANCE TUNING

3742 MOTORCYCLE CARBURETORS	\$6.95
3741 MOTORCYCLE ELECTRICAL SYSTEMS	\$4.95
1039 MOTORCYCLE TROUBLESHOOTING	\$4.95
3724 MOTORCYCLE ENGINEERING	\$5.00

3745 SPEED & HOW TO OBTAIN IT	\$2.95
3743 RACING & TUNING PRODUCTION MOTORCYCLES	\$3.95

MISCELLANEOUS

3746 HINTS & TIPS for motorcyclists	\$2.95
9421 ALL ABOUT MINIBIKES	\$5.00
9524 MOTORCYCLES—a buyer's guide & rider's guide	\$6.95
1772 CHILTON'S AUTO REPAIR MANUAL: 1972— for all American-built cars from 1965-72	\$10.95
1763 CHILTON'S AUTO REPAIR MANUAL: 1954-63— for all American-built cars of period	\$17.95

FREE service record book with every order. The perfect way to 'remember' every tune-up, adjustment, repair, lube job, item bought, and its cost.

CARBOOKS, INC. 2628 Atlantic Ave.
Brooklyn, N.Y. 11207

☐ I enclose full payment of \$
☐ Send C.O.D. (U.S.A. only) \$1 additional **OR**

INDICATE BY NUMBER THE BOOKS YOU WANT

ADD 50¢ POSTAGE & HANDLING TO ALL ORDERS

NAME

ADDRESS

CITY

STATE

ZIP

MCB

SATISFACTION GUARANTEED OR YOUR MONEY BACK

letters FROM THE TROOPS



Dear Sirs:

I am the proud owner of a Kawasaki 125E '72 model with a Hooker. I would like to know the date of the Baja motorcycle race, how much is the entry fee, and is there any age limit? Could you please inform me of the location, and how do I go about entering it? Do you think this bike is good for this type of racing? My friend and I will be grateful for any answers.

Sam Humphreys
Cliff King
Texarkana, Texas

This year the Mexican 1000 takes place on the first week in November. The entry fee, \$350.00, is probably one of the smallest expenses incurred by anyone entering a bike in the Baja. Racing in Baja is very serious business and, as Malcolm Smith once said, "You've got to win the thing just to break even." If you're serious about entering the Mexican 1000 you can obtain all the information you need by writing to NORRA, 1616 Victory Blvd., Suite 200, Glendale, California 91201, (213) 245-1033.—Ed.

Dear Sirs:

I am ten years old, and I have a Kawasaki 175cc. Wherever I ride most guys say they are not too hot. I would like to have your opinion of my bike.

Sam Diblin
Willingboro, N.J.

Personally, I feel that the Kawasaki 175 is one of the best medium displacement enduro-type machines we've tested this year. More important is your opinion of the bike.—Ed.

Dear Sirs:

I recently purchased a Yamaha LT-2 100 and it is a great bike. I want to buy a knobby tire for it and it has a 3.00x18. What tire would be the best? I will appreciate your help. You have a great mag, keep up the good work.

Mike Carboy
Pompton Lakes, N.J.

What tire would be the best? That depends on what you want from a knobby. Some tires are made with a very hard compound which seems impervious to wear. This type of tire seems to last forever, yet it does not give the best of traction. Conversely, there are tires which are made with a very soft compound which give excellent traction, yet seem to wear out at a horrendous rate. If you want the best of traction I suggest the softer compound. You might check out a Barum or a new Full Bore knobby, they're both excellent.—Ed.

Gents:

In your March, 1972 issue on the 125 Rickman on page 66 you show a kick stand bolted to the swinging arm. Where can I get one! I have a Rickman with no side stand and can't find one that fits.

Adam B. Reiser
Midvale, New Jersey

The side stand you are interested in is available from Steen's, Incorporated, 1635 West Valley Blvd., Alhambra, California 91803.—Ed.

Dear Sirs:

I would like any information you may have on a Rabbit Touring 150, Model S402, made by Fuji

(Text continued on page 16)

Carabela is

celebrating

our 2nd year in the U.S. market after an extensive program of research and development!

growing

rapidly with the addition of 3 new competition models to our continually growing line!

distributing

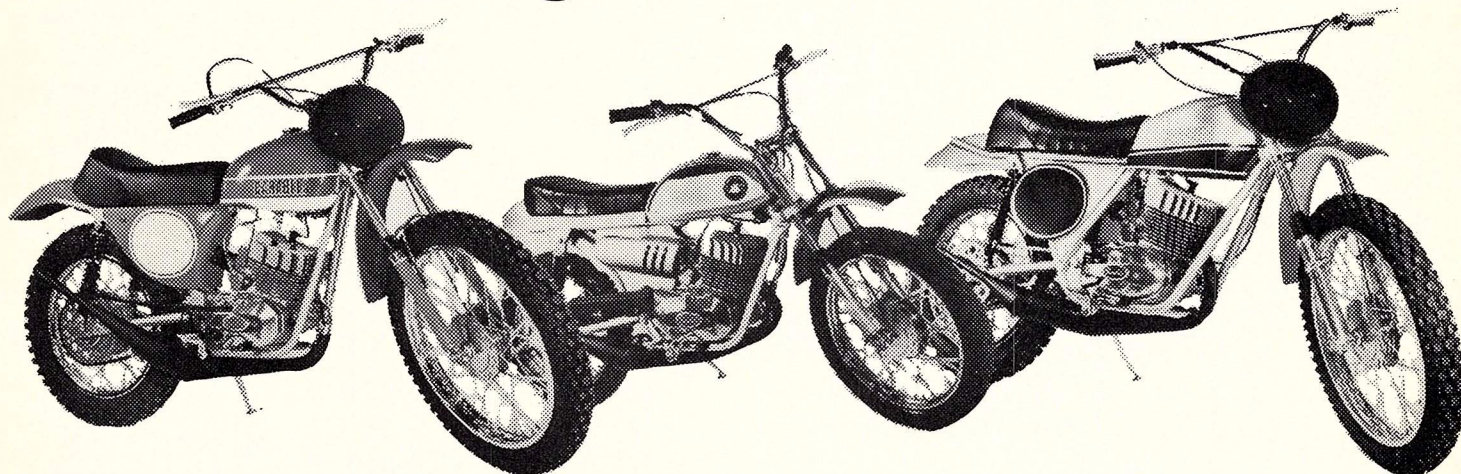
nationally through a network of over 200 authorized dealers which is expanding daily!

lightning

fast delivery schedules, being the closest foreign manufacturer to the U.S.!

winning

races in sales and competition everywhere!



CALIENTE 125 cc MX 5 SPEED
19 HP 13.5:1 compression 2 stroke
engine • Multi-plate wet disc clutch
7½ in. ground clearance
weight 183 lbs.

COYOTE 100 cc MX 4 SPEED
12 HP 10:1 compression two stroke
engine • Multi-plate wet disc clutch
9½ in. ground clearance
weight 137 lbs.

CARRERA 200 cc MX 4 SPEED
25 HP 13.5:1 compression 2 stroke
engine • Multi-plate wet disc clutch
8½ in. ground clearance
weight 205 lbs.

For Dealer or Motorcycle Information Contact:




Carabela Motorcycle Corporation

172 Freedom Ave.

Anaheim, Calif. 92801 • (714) 870-5243



Jim Rice (24) squirts dirt at Mark Brelsford's Harley after passing him for the lead in the final.



THE COLORADO MILE

JIM RICE RETURNS TO FORM

The Mile has always had a very special magic of its own. Old timers who remember Dick Mann's Novice number, and newcomers to the idea of motorcycle competition, all came out to view the speed and spectacle and to feel the magic of the Mile. The riders, too, are always up for the Mile, and the first mile race of the season brings out a flock of new riders and a bunch of new and "trick" equipment.

Colorado Springs, Colorado, just at the base of Pike's Peak,

Report and photos by Dan Mahoney

has a very nice, one-mile long oval horse track called Pike's Peak Meadows. Don Brymer of Trojan Enterprises, who is always skulking about seeking new locations and new audiences for his Yamaha Cup races, pounced on this one the instant he spotted it.

The track surface itself, however, left a little to be desired. This is to be expected, though with a new race track, and the improvement of the compound between Saturday and Sunday was tremendous.

Saturday's practice, qualifying, and Novice races were hampered by on-on-off 35 mph winds and by a race track that somebody tried to make into a grove when they shouldn't have.

Predictably, the new alloy Harleys looked the best all day, closely chased by Ken Roberts and Gary Scott, two very rapid first-year Experts. Jim Rice, aboard

Droste were Yamaha's success stories of the weekend, not losing anything in two days.

When the green flag fell for the Junior final of 15 laps, 19-year-old Steve Droste put his Yamaha into the lead and pulled away. Harley-Davidson's new son, Scott Brelsford, zigged and zagged his way past three or four people down the back straight to eventually nip at Droste's heels. Earlier, Brelsford had mistaken the white last-lap flag for the checkered one and dropped from first to sixth in the heat race, last transfer spot to the Main. Now he was using his Harley horsepower to push Droste to the limit. Steve's four years of big bike experience in the midwest Badger Racing Association took hold and out foxed the younger Brelsford brother by leading him deep into the corners, then Scott would be forced to ride wide coming out,

lier been the victim of a hole in the track and had crashed hard, being taken away for a possible pelvic injury. Ex-Canadian Dave Sehl put his Harley away with minor motor troubles in the Semi. Last year's Ascot high point rider, John Nicholas, has forsaken his Norton ride and was aboard Sehl's old cast iron model when he nicked a hay bale and went end-over-end. He escaped with a bruised shoulder and a lucky feeling. Anyway, back to the final.

At the start, as expected, Mark Brelsford shot out into the lead, and at the end of lap one, held it by about 200 feet over Rice, Roberts, Rayborn, and John Hateley. By lap two Rice was tucked in behind Mark, and by lap three was under Jim in turn three, and past at the start-finish line. From then on he stretched it into almost a full straightaway over his fellow Northern Californian. Meanwhile,



his "old" BSA 750 twin, in his usual unspectacular fashion, was sneakily under 43 seconds in time trials, the first to do so all day. Eventually, five riders made it under the mark into the high 42's, including fast time Mark Brelsford with a 42.78. The others were Roberts, Scott, Rice, and Cal Rayborn, always one of the best Milers around. Fast Junior time was posted by the Yamaha of ex-car jumper (I promise I'll never call you that again, Steve), Steve Droste of Waterloo, Iowa. Droste slid his 750 around in 43.81 seconds, over a full second slower than Brelsford's H-D.

After six or seven Novice heats, one Semi, and a 10-mile final, Albuquerque ace Randy Brackett and his Yamaha twin came out on top, being pushed hard all the way by Craig Cederberg and Roger Sterling. Brackett and

causing him to lose traction, losing his drive down the straightaway. But very quickly Scott will learn how to handle his new-found toy and then, Juniors, watch out! Droste led by a bike length at the finish. Back in the ranks John Caldwell battled his way through to grab third spot over the BSA's of Mike Willett and Jim Rawls. Houston Junior National TT winner Joe Brown brought his Yamaha home in sixth position, his best flat track finish thus far this season.

After Mark Brelsford and Calvin Rayborn finished 1-2 in the first heat, and then Mert Lawwill took the Semi, Harley folks were already feeling proud when the National final rolled up to the line. With four of the six factory riders in the line-up, the Milwaukee orange and black had to be the favorite. Bart Markel had ear-

in quick succession, Chuck Palmgren's cam chain tensioner let go, Dick Mann's BSA quit, Rex Beauchamp's H-D gave up, John Hateley's Triumph holed a piston, Cal Rayborn wobbled in with handling troubles, and Gary Scott melted a piston.

First-year Expert Mike Kidd of Hurst, Texas, was steadily riding his Yamaha around and finally put it behind Roberts to pick up fourth spot, followed in by Keith Mashburn and Charley Seale. Rice had lapped the other eight remaining riders to make it look convincing.

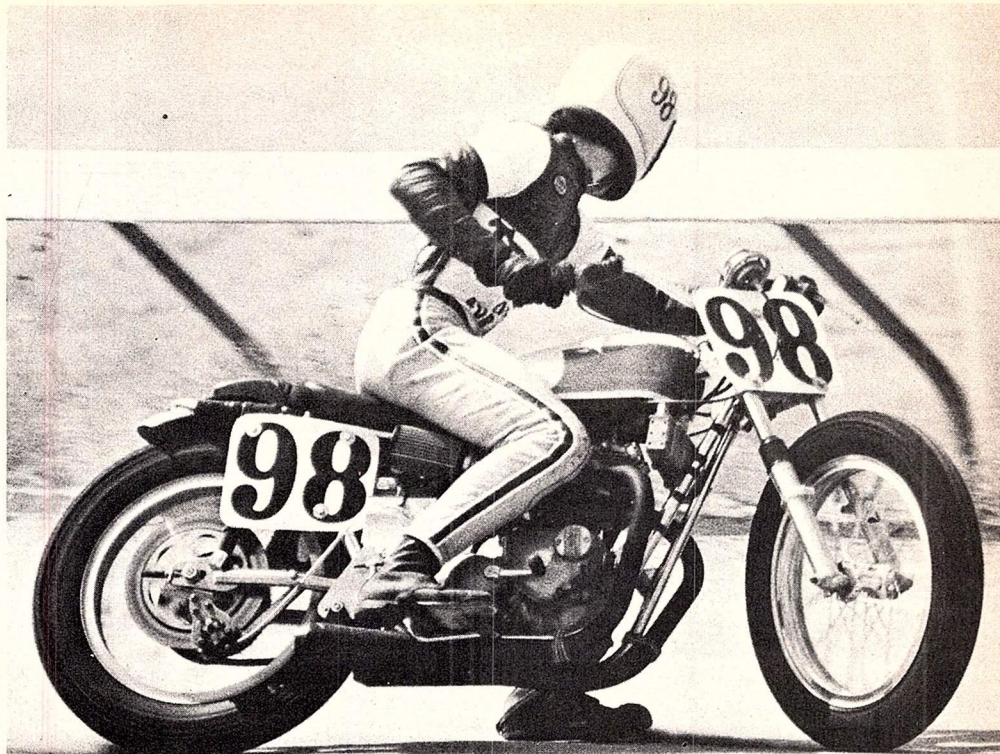
Promoter Don Brymer, after it was all over, handed Rice a huge trophy, the trophy girl gave him a huge kiss (as did his girlfriend), and the happy citizens of Colorado, indirectly through the \$12,000 purse, gave him about \$5,000. All Jim could say was, "Boy, could I use a shower!" ●



Expert Randy Scott about to "bale" (no, he didn't fall, but he sure scattered a bunch of hay and spectators!) in the National final.

Note that (1) Dick Mann's rear wheel is in the air, that (80Y) Kenny Roberts is up off the seat, and (4) Bart Markel's front end is washing out.

Bart Markel, Harley-Davidson.

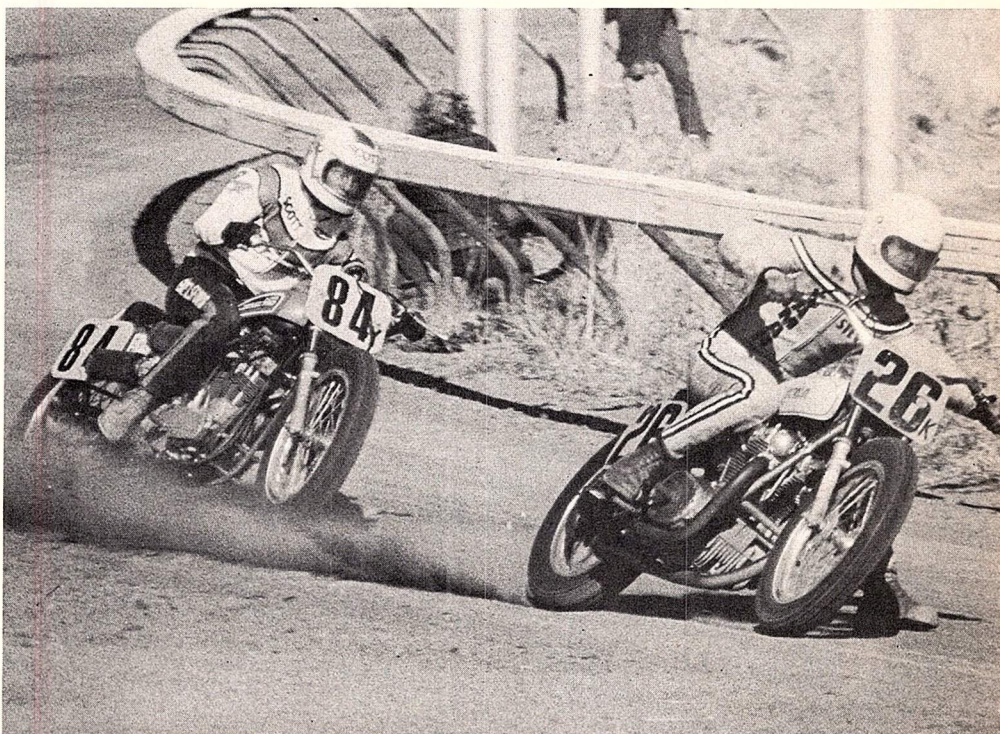
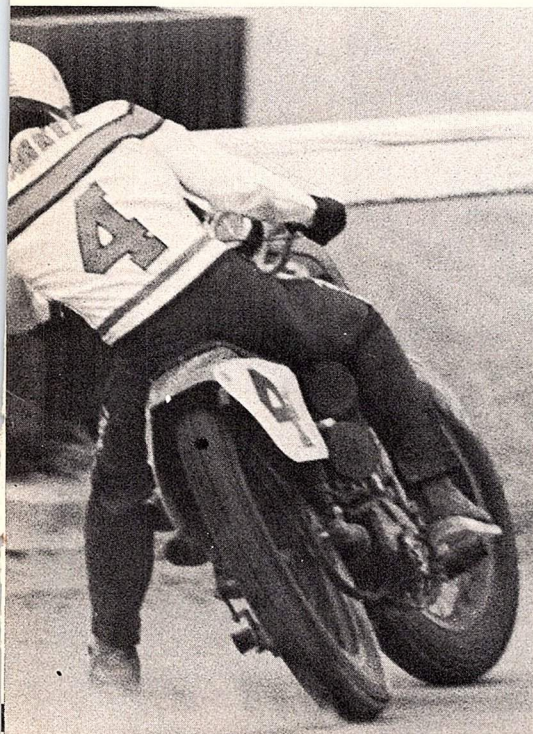


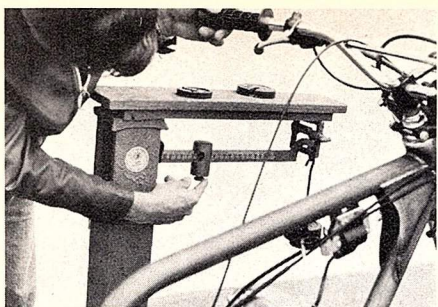
John Hateley takes a quick look back. He blew engine in the final, finished 17th.

Novice winner Randy Brackett flashes by starter Bouncing Bob's checkered flag on his Yamaha TD-2 250cc twin.

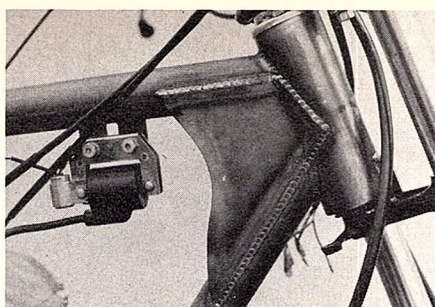


Steve Droste (26K) fends off Scott Brelsford in the Junior final.

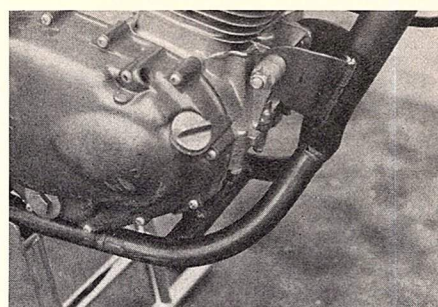




At this stage of the game we measured a total of 235 pounds; our projected target weight.



Steering head bearings are Timken tapers, notice the beautiful welding that is so typical of Trackmaster frames.



The bottom tubes join the single down tube in front of the engine instead of midway under the cases as in the stock configuration.

MODERN CYCLE'S HONDA XL-250 M

The appearance of Honda's XL-250 was a grand occasion for all those off-road enthusiasts who, by now, must number in the hundreds of thousands. Trouble is too many of them saw that high flying poster shot of J. N. Roberts soaring over a sand dune on one. Now many people have the idea that Honda's 250 single is going to return respectability to the four-stroke in off-road competition. The magazines who tested this machine (even *Modern Cycle's* May, 1972 issue), all shouted in unison that the XL was a fine enduro and maybe even a good desert bike but doesn't have what it takes to be com-

petitive in moto cross racing. Even Honda knows this, that's why they have a serious moto cross effort going with lightweight two-strokes.

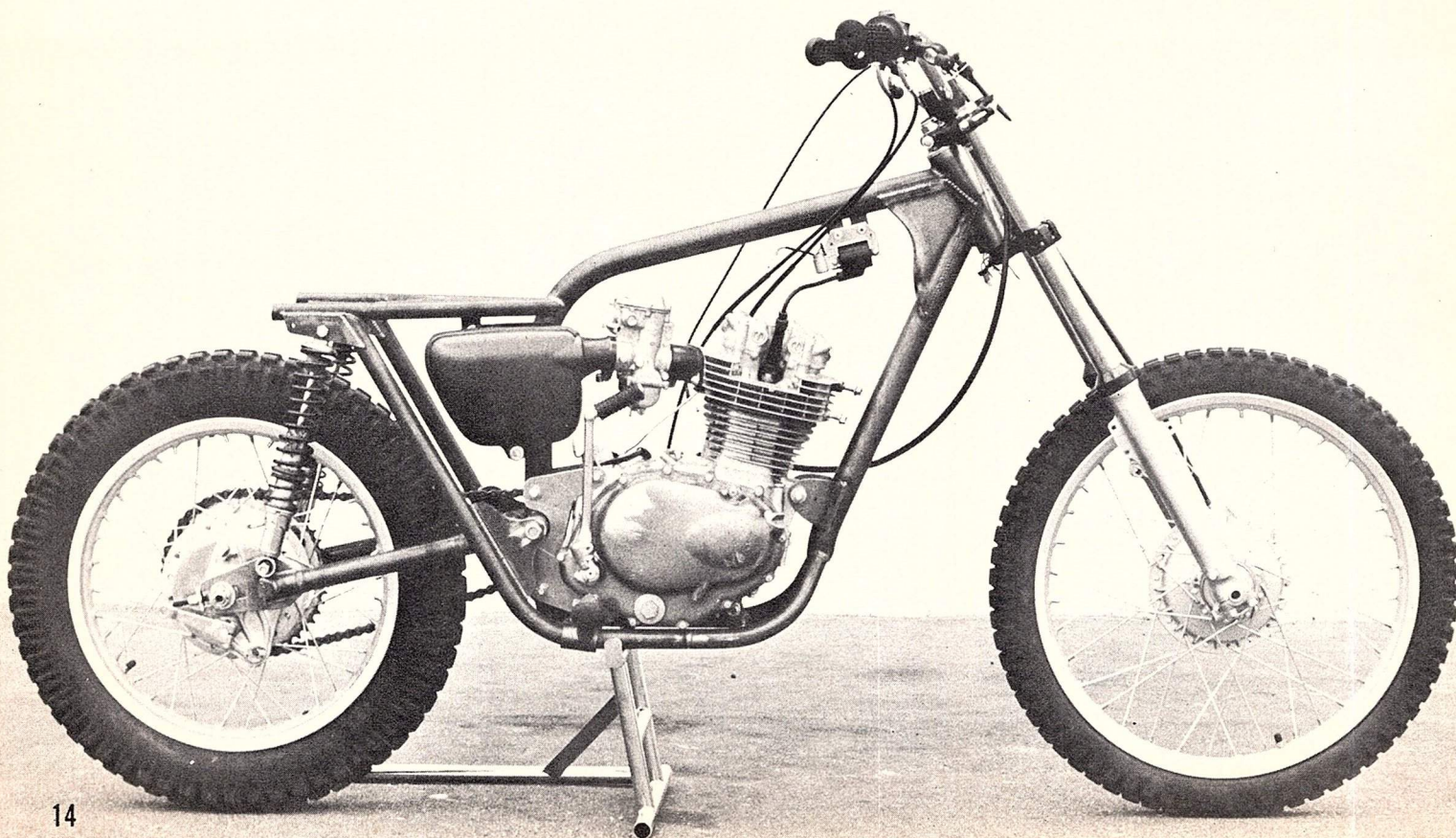
Although superbly engineered and well thought out the production XL-

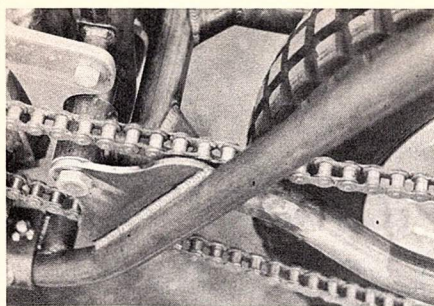
A PROJECT BEGINS

250s are underpowered and overweight, hardly the ingredients of an out and out racer. It has some fine looking wheels, smooth working forks, and that thump-thump sound which warms the blood of people who dig valves, cams, and rocker arms.

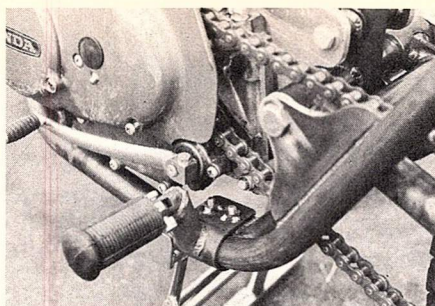
This engine, with four valves breathing a single cylinder, an ultra-short stroke, and a chain driven overhead camshaft, even got the juices of the *Modern Cycle* staff flowing. So we have (foolishly?) plunged headlong into an extensive project whose ultimate target will be a competitive four-stroke for competition, a superlight, firebreathing monster that will strike fear into the hearts of all those Maico, Husky, and CZ riders.

Phase I gave us a grim picture. After getting some dyno readings that confirmed the engine put out 23.3 horsepower at the crankshaft and 15.5 to





This photo clearly shows the rigid mounting used to hold the H section swing arm.



Footrest to shift lever location is proper, the rubber covered pegs will have to go.



those Trackmaster is famous for. It's made from .063 wall chrome-moly steel tubing and heli-arc welded.

K PROJECT

the rear wheel we decided to dismantle this 278-pound beauty.

We found some interesting things. First, the engine with its carburetor, kickstarter, and electrics weighed 88 pounds wet. That's about 20 pounds more than the two-strokes it has to compete with. The bare frame, suspension, and wheels (what I call running gear), total 112 pounds. Little things also took on gross proportions like the muffler assembly at 11 pounds, the seat and fuel tank (empty) 15 pounds, and a box full of the XL's lighting equipment weighed another 15. So, the first step in our XL project

is to get the weight off.

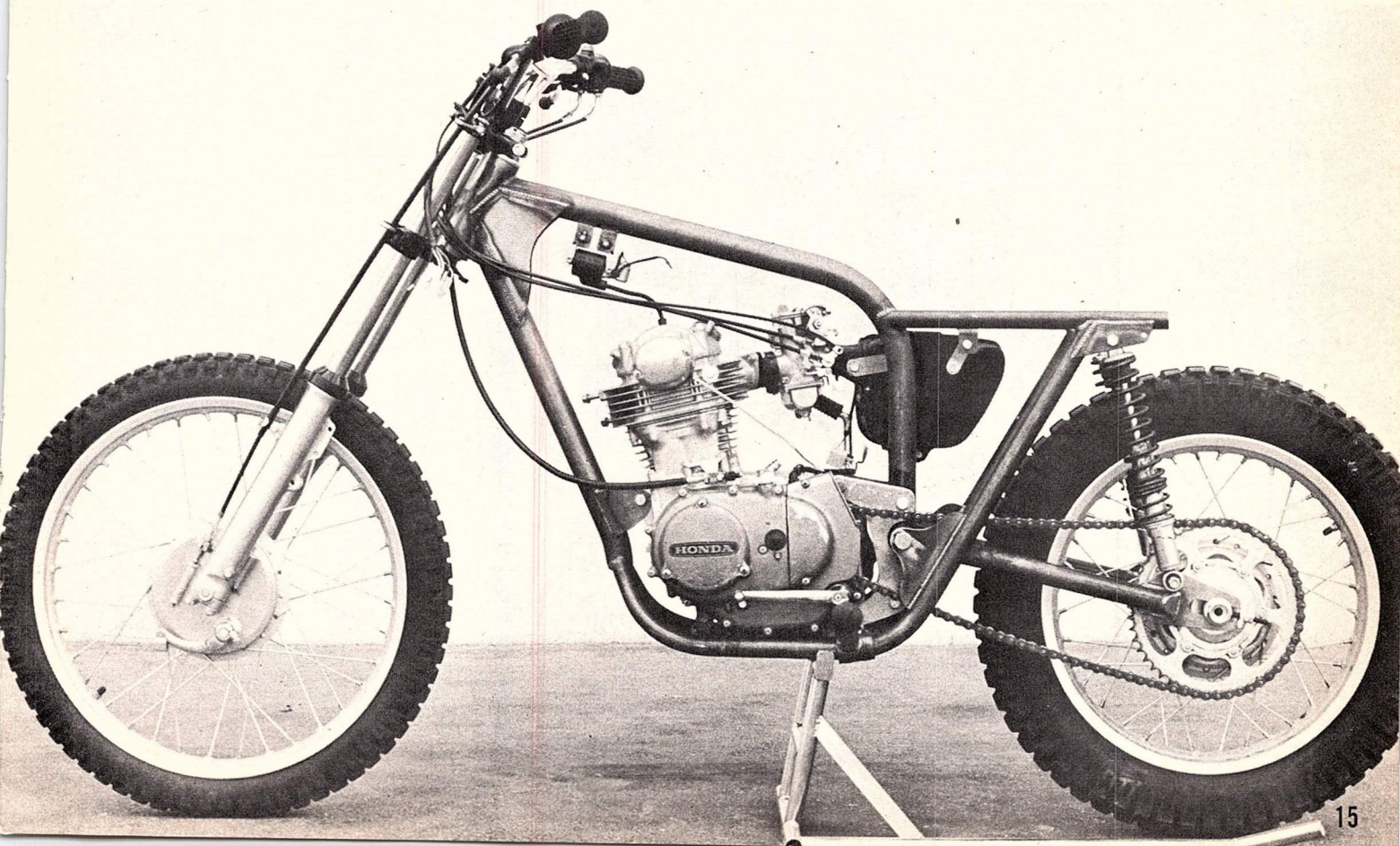
Trackmaster in Northridge, California, makes motorcycle frames par excellence. In fact, the only frame that is more successful on the National racing circuits is Harley-Davidson's. The guys at Trackmaster build frames for more uses than just running around smooth tracks, and they also build 'em to fit several different engines. So we had a session with them about our XL project and decided the best place to start would be with a super lightweight chassis designed for the bumpy moto cross courses.

Once we got the old standard XL frame stripped down to just the swing arm and side stand we stuck it on our scale; it weighed 40 pounds. The Trackmaster frame is considerably less but at this point, lacking a few brackets and a brake assembly, we're not going to set it on the scale, yet. In appearance the XL chassis is very similar to

those Trackmaster is famous for. It's made from .063 wall chrome-moly steel tubing and heli-arc welded. At the moment, this chassis is in its experimental stages, the intent is to come up with a better frame that will use many of the standard Honda XL pieces. We found the seat, fuel tank and rear fender to be grossly overweight so those will have to go. It uses standard forks and shocks with provisions made to fit different pieces. The normal rear damper unit has a 13.5-inch eye to eye measurement, we are able to fit 12.5 units and slide the forks up in their triple clamps if necessary. As you can see there's going to be a lot of fiddling done with this machine.

The chassis, although similar in appearance, is quite different from Honda's. Instead of a 54.5-inch wheelbase ours is 56 to 57 inches. The engine has been brought forward an inch but not closer to the ground. The under frame tubes cradle the base of the engine for protection, and the engine is held at its normal four places. The un-

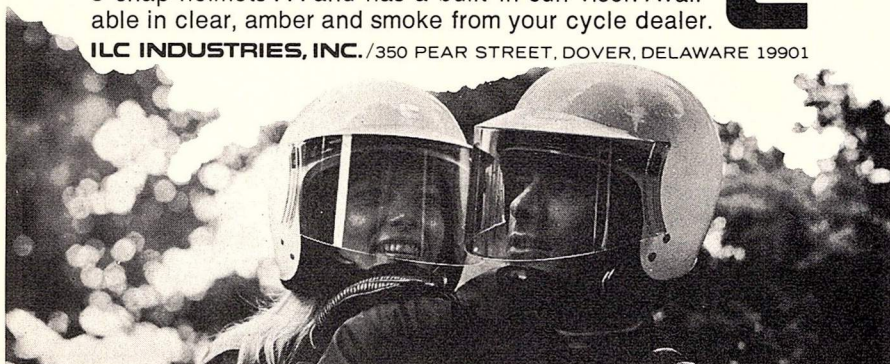
(Text continued on page 20)



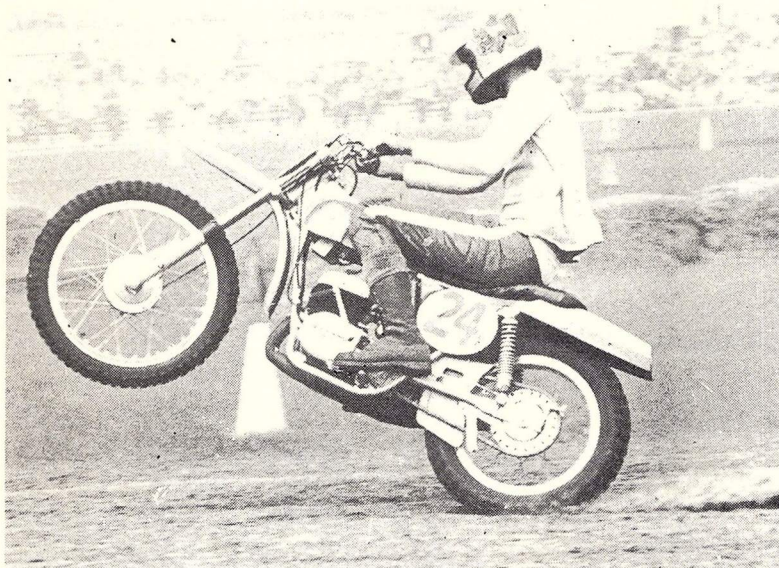
Vari-shield™ the new look in face protection

The ILC VARI-SHIELD, an entirely new concept in design and face protection, is made of strong, distortion-free polycarbonate, $\frac{3}{32}$ " thick . . . helps eliminate fogging problems . . . slides up or down to any position and stays there . . . fits standard 3-snap helmets . . . and has a built-in sun visor. Available in clear, amber and smoke from your cycle dealer.

ILC INDUSTRIES, INC./350 PEAR STREET, DOVER, DELAWARE 19901



October 24, 1971--Gary Bailey's Bultaco failed to finish. That was the only time!



AT MEMPHIS, TENNESSEE, ON OCTOBER 24TH, 1971, GARY BAILEY'S BULTACO STOPPED WITH ENGINE TROUBLE. BUT THAT WAS THE ONE AND ONLY TIME IN 64 STARTS DURING LAST SEASON! THE REST OF THE YEAR SAW THE BAILEY/BULTACO COMBINATION TAKE 43 FIRST PLACES, 11 SECONDS AND 9 OTHER TOP-SIX PLACINGS! ALONG THE WAY HE CAPTURED THE 250CC CLASS TITLE IN THE AMA SPRING PROFESSIONAL MOTO-CROSS SERIES. WRITE TO BULTACO SERVICES, PO BOX 433, SILVERADO, CALIFORNIA 92676 FOR MORE DETAILS OF BULTACO'S COMPETITION-PROVEN RANGE.



LETTERS

(Text continued from page 8)

Industries, Japan. I also need to know where parts may be available for same.

J. W. Love
Garden City, N.Y.

Unfortunately, the Rabbit machine did not multiply with the speed of their legendary namesakes. I haven't the faintest idea where you might obtain spare parts.—Ed.

Dear Sirs:

I really like your mag. It's got what I like such as your "Photo Contest," "New Products," and "Letters." But you really ought to watch those hard statements like on page 24 of your March, 1972 issue you stated that, "Hooker or any other chamber would be too loud for the trail." I must strongly disagree with you because I have a Yammie HT-1 equipped with a Hooker chamber and they have really done a good job at keeping the noise down and power up.

Denis Jefferson
Northfield, N.J.

I repeat, "Any chamber is too loud for the trail!" A silenced chamber, providing the silencing material is replaced periodically, is an entirely different matter.—Ed.

Dear Sirs:

I read the article you had in the January issue about, "Turning the H-D Baja Into a Bomb."

I have had a H-D Baja for about 2 years and have wanted to find a reed valve and pumper carburetor set-up. I am writing to see if you could give me the address of Aaron Jeppson. I would like to write him to see if he can give me a few more specs and measurements on the engine. I would also like to know the address of the Kendrick Engineering firm, and the price of the kit.

(Text continued on page 36)



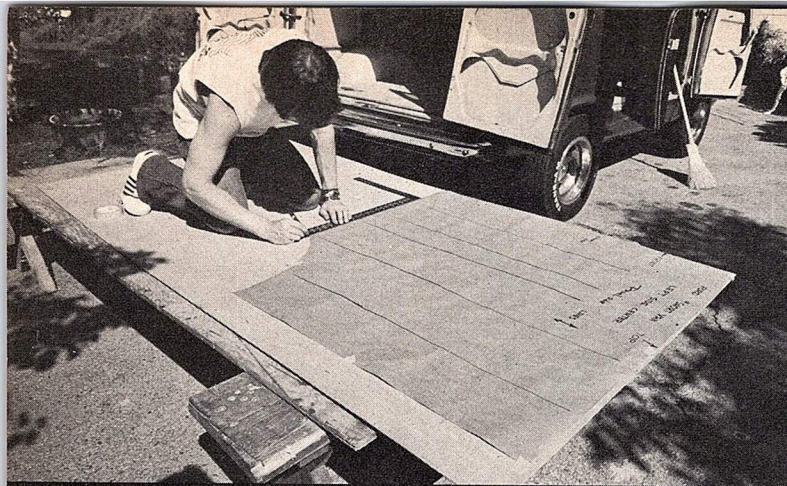
Van Patterns

The easy way to convert a stark van into a comfortable vehicle.

a *The first step is to carefully cut out the pattern. An Exacto knife or razor blade should be run along the outer edge of the indicated line.*

Visit the pits at any popular en-

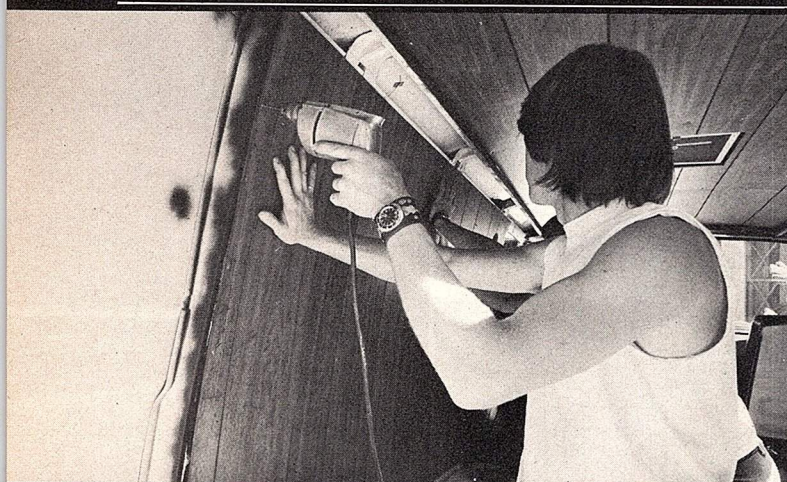
duro, big off-road race, or even road race and you'll note that one of the most popular vehicles for transporting competition bikes is the ubiquitous van. The box-like



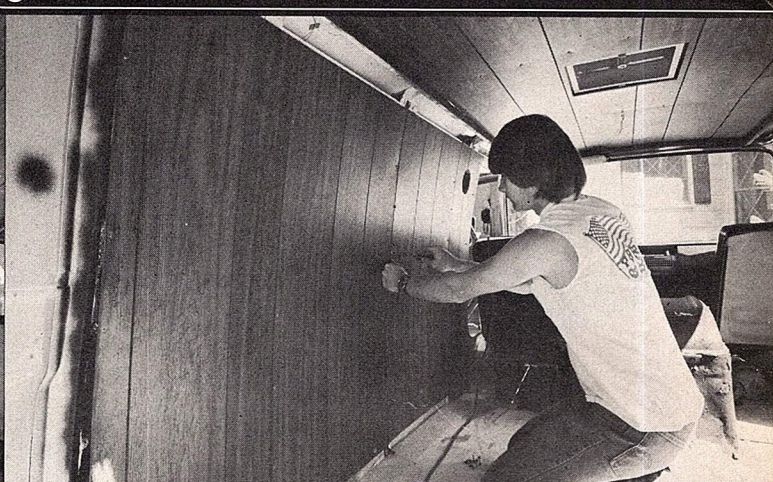
B



C



F

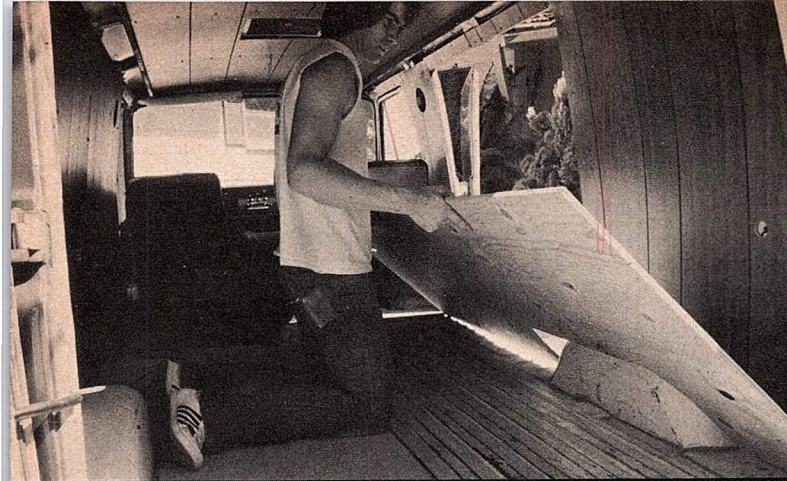


G

van has a lot going for it as a bike hauler: The machines, tools, and other gear are in out of the elements and safely away from the eyes of light fingered pilferers. Once in the pits the van is a great place to get away from the noise and heat between motos. And, for the desert racers who like to arrive on the scene on Saturday, the van offers excellent sleeping accommodations. Alas, the interior of the van, at least in its standard form, offers all the features of a sardine can.

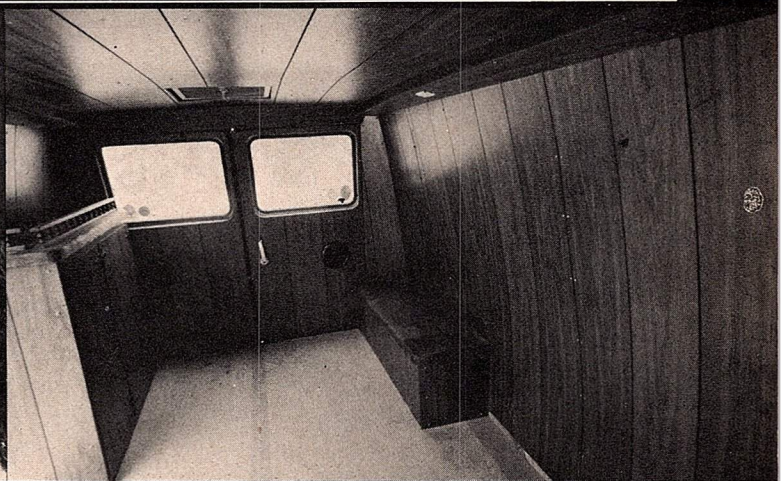
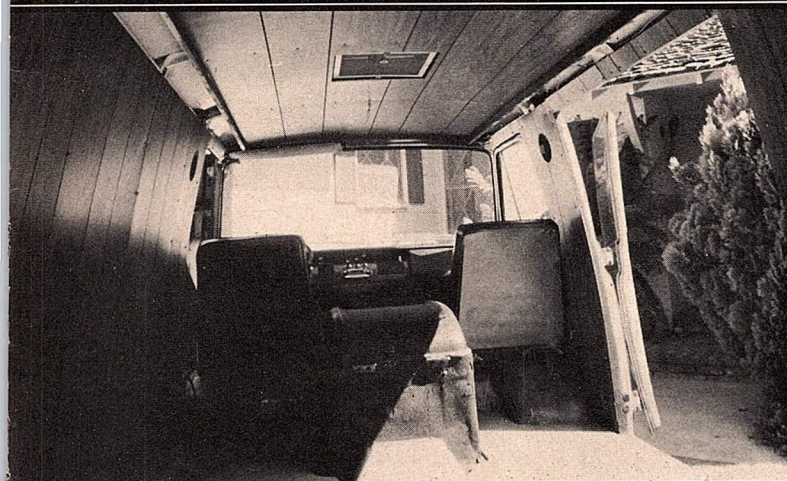
Almost everyone has seen at least one van with an interior which has been installed by professionals who specialize in turning these vehicles into mini-mobile homes. The first step in this sort of conversion is usually a wood-grained paneling which hides all the exposed metal ribs and helps, to some degree, to deaden the metallic resonates common to a van. After the paneling is in place other niceties like cabinets and racks can be added, but the paneling always comes first.

Van Patterns



D

E



H

I

Most bike racers devote the majority of their budgets to keeping their equipment running. Thus, if they own a van, the amount of money available to "civilize" it is very limited. Rather than pay a professional to do the job, many van owners try to install their own

paneling. On the surface it's a job that appears to be quite simple, in practice it's almost always a bitch. Simply measuring the wall of the van and transferring the measurement to sheets of plywood paneling usually results in great gaps at either the bottom or the

top of the paneling. Contoured walls and compound curves are hard to transfer to sheets of paneling with any degree of accuracy. The cut-and-try method of paneling a van can be extremely expensive in that an awful lot of panels are wasted before the dimensions are just right. For the person who wants to panel his own van a solution to this problem exists: it's known as Van Patterns, and it's so simple in concept that we're surprised someone didn't think of it years ago.

Van Patterns are just like the dress patterns a woman uses when she makes her own clothing. The patterns are printed on a heavy grade of paper. The pattern is simply cut out along the indicated lines, and then its shape is traced onto the sheet of paneling. The next step is to carefully saw the panels along the lines indicated by the pattern. That's just about all there is to it.

The Van Patterns are the brain child of T & H Works Unlimited of
(Text continued on page 34)

b Once the pattern has been cut out masking tape can be used to hold the pattern in position.

c Further care should be exercised when cutting out the panels. A goof here can waste the entire sheet. Once the cut out has been completed the edges of the panels should be stained prior to installation.

d The floor is the first component to be installed. The floor butts firmly against the inner wall of the van and provides a brace for the side paneling.

e Insulation is held in position with strips of masking tape. The installed panels keep the insulation from moving around.

f The panel is located in the proper position and the first screw holes are drilled. It's best to have a friend on hand to help in holding the panels in position.

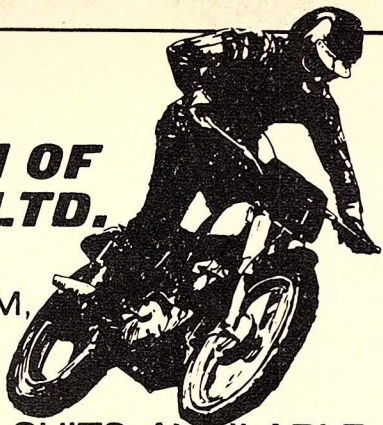
g Once the panels have been properly aligned the mounting holes are drilled and sheet metal screws are run into place.

h The job nears completion. A total of five sheets of 4 by 8 panels are required to finish a regular size van. The Super Van will take six panels.

i The completed job with some cabinets already installed. The short "cabinet" on the right covers the wheel well and provides a handy bench. The cabinet on the left hides the spare tire and gives space for tool storage.

HYLAND M.V. EXPORT DIVISION OF HYLAND CROWE LTD.

111 SOUTH ROAD,
ERDINGTON, BIRMINGHAM,
ENGLAND



THE FAMOUS BARBOUR SUITS AVAILABLE

The competition specialists for: 'Big T' moto-x leathers by Tarantella, Britain's #1 manufacturer, also in kiddie sizes with choice of colors and side stripes—'Big T' moto-x gloves, the latest concept in moto-x gloves, soft and supple with colored finger/thumb protective backing and Velcro wrist fastening—Grand Prix moto-x jerseys—socks—Ashman moto-x and trails boots—Barbour and Belstaff clothing—Bert Greeves and Kett body belts—Jofa mouth and chest guards—Carerra moto-x goggles—alloy fenders—oval alloy racing number plates and stick on numbers—chrome steel and alloy brake and clutch levers—Husqvarna alloy gas tanks—Renold chain—Lodge racing plugs—nylon lined 'Flexercable' cables for Greeves, A.J.S., Husqvarna, Montesa, etc.—Amal concentric carburetors up to 38 mm.—Cheney equipment—Girling shocks—spares for Greeves, A.J.S., (Moto-X), Montesa, Cotton . . . and many other top quality competition goodies. Send for return air mail quotes to above address or send \$1 (refundable) for illustrated catalogue on many of the above items to Hyland M.V., P.O. Box 39393, Los Angeles, Ca. 90039.

XL-250 PROJECT

(Text continued from page 15)
laden ground clearance is 10 inches, but that may change. We did increase the steering head angle half a degree to 30.

We are shooting for a target weight of under 235 dry. Once this is met and the handling sorted out *Modern Cycle* will begin Phase II, more horsepower. This ultra-short stroke engine should be capable of 30 big four-stroke horses at the crankshaft and still carry a usable power band. When we have arrived at that goal Phase III will begin.

Once we feel the machine has become a competitive moto-crosser, or we have exhausted our facilities in trying to make one, we will convert the bike into the most sophisticated enduro machine ever. By this time we will have probed deeply into the limits of knocking the weight off, and improved its handling and horsepower. We will increase the fuel tank capacity, hang working lights on it, and probably decrease horsepower in favor of a bunch of usable torque. This very ambitious project will take a lot of time, and if you hang with us over the next several issues of *Modern Cycle* we'll keep you posted on the XL-250 MX project. ●

NEW ACCESSORIES FROM GTMA

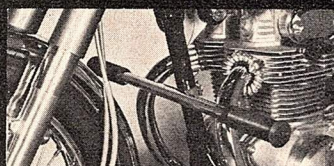
GT MOTORCYCLE ACCESSORIES



THE "TURN-BUZZER"

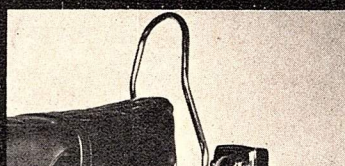
is a weather-proof device that emits a low-level, high frequency sound when your directional signals are flashing. No more cars turning in front of you because you didn't know you were signaling. Installs in minutes. Fits most motorcycles with directional signals. **ONLY \$7.95**

With volume control \$9.95



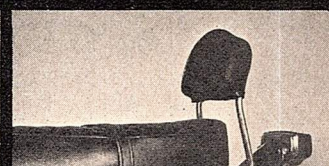
THE "CRUISER"

is a chrome accessory which installs in minutes and allows you to vary your foot position when touring or just cruising around town. Adds comfort and looks to your bike. *Specify Single or Double when ordering.* For single tube frame, **ONLY \$12.95** For double tube frame, **ONLY \$14.95**



THE "LEANER"

is a chrome backrest which installs in minutes and will give your passenger comfort and support. Also gives your bike a custom look. **ONLY \$9.95**



THE "LEANER-PAD"

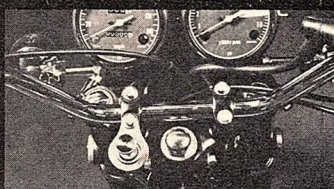
is a quality snap-on naugahyde cushion for the "Leaner." It will give your passenger added support and comfort. Installs in seconds. **ONLY \$4.95**

AVAILABLE NOW AT YOUR LOCAL MOTORCYCLE DEALER



THE "SWITCH-A-SWITCH"

is a simple conversion kit for changing the location of your ignition switch from under the tank to the handlebars. No more burned fingers, stooping or searching, it's right there in front of you. **ONLY \$1.95**



THE "CIGARETTE LIGHTER"

is a chrome unit which attaches to the handlebars and puts a light to your cigarette within easy reach. **ONLY \$4.95**

Specify 6 or 12 volt when ordering.



THE "GAUGE-MOUNT"

is a chrome device that allows you to mount any standard two-inch gauge to your handlebars. Supplement your stock instruments with the gauge of your choice. **ONLY \$1.95**

OR

SPECIFY YEAR, MAKE AND
MODEL OF YOUR BIKE
and mail check or
money order to:

GTMA
P.O. Box 2126 MC 8
WINNETKA, CALIF. 91306

All postage paid
NO COD'S
Calif. residents add 5% sales tax
Dealer Inquiries Invited

up on the pegs

BY DAVE EKINS

The Communication Gap

I have been a member of the American Motorcycle Association for 20 years, I am not bragging, I am not complaining. Twenty years ago we used to send our dollar off to Ohio, and in return we received a nice AMA pin. Each succeeding year it would change in design and show the number of years you belonged to the organization. They looked good on our leather stroker caps and you could always tell the old timers by the number of brightly colored AMA pins they were wearing. It was part of the costume.

Then, the AMA raised the price to two dollars, and none of us bitched much because we already had a collection of pins and it would've been a shame to terminate this neat collection over a lousy dollar. Soon after, the only way you could get an AMA pin was to order it special and pay extra. Needless to say, many other motorcycle riders along with myself have ended our collection of AMA pins.

In the early days the AMA was noted for not doing much other than keeping a watchful eye on those races that counted towards the Grand National Championship. It was said to be industry controlled and all that, but none of us really cared much, just so we got our pins. In fact, the AMA was necessary only as a distant whipping boy whom we could complain about (not to), during our club meetings and other impromptu gatherings. A buck or two each year wasn't much when you considered all the pent steam one could let off.

Now, the AMA has a different kind of leader in the form of Russ March. I have met Mr. March and chatted with him, and I've found him to be a very complex man, in other words, I haven't been able to figure him out. The AMA people under Mr. March, I feel, are all loyal to their Executive Director and are willing to follow his leadership. This is the mark of a good leader.

Last year or maybe a couple of years ago the AMA secured a group life and accident policy for all its members.

Considering the fact that life insurance companies think motorcycles are extremely dangerous, and racing them in any form is far and beyond what you might call a bad risk, the AMA in securing a policy for its members had worked a miracle. It was a \$5,000.00 death or dismemberment policy with a percentage of the hospital bill paid if you end up there as a result of competing in an event sanctioned by the AMA or for any other reason. Sounded great, and with approximately 140,000 policy holders you could safely call this a large group.

So, in early May of 1972 I received a fat envelope from the AMA. Besides the usual sign-up card was another circular titled, "Safely Enjoying the Open World of Motorcycling 1972." It's about our insurance and the lead paragraph has the exclusion, "except while participating in any racing, speed, or endurance contest." Then on the back side of this same piece of paper under 'Exclusions,' it says everything any life insurance policy would say; not payable if killed in a declared or undeclared war, or a result of suicide, or participating in any racing, speed or endurance contest.

It will, however, pay the dismemberment or death benefits in full if you meet with some horror while simply riding your motorcycle or even if you get it while watching a motorcycle race. Many policies would exclude this. So, the AMA does have a death or dismemberment policy for its members, it just won't pay off if the accident occurs while you are in some sort of competition with your motorcycle. I spend as many miles on the highway testing bikes as I do out in the boonies, I'm not particularly happy about losing half the benefits, but half is better than none.

I did learn through the grapevine recently that the AMA will once again be sending pins. I think I will dust off my old black leather stroker cap.

SHAMROCKS ENDURO

In all probability the best organized and most respected enduro in this country is hosted by the Sunland Shamrocks. The club is what we call a family club with wives and kids all involved. Only male members appear on the roster which fluctuates between 60 and 80 and account for many of this country's better enduro riders.

Their annual Shamrocks Enduro has always been a popular event with dirt riders. During the early sixties it was known as the March of Dimes Enduro with proceeds being donated to this worthy cause. Then, with the development by Doctor Salk and a need for

a hospital in Mojave, the Shamrocks donated heavily towards the completion of that facility. This is motorcycling working closely with the community for the betterment of both.

The most recent Shamrocks Enduro was yesterday, I rode it for the twelfth consecutive time. Because we are in the age of government control on what seems to be everything, including where we can ride our motorcycles, the Shamrocks went through all the red tape and agony to get permission to have their enduro in the Angeles National Forest. It was a lot of work, but they got it done.

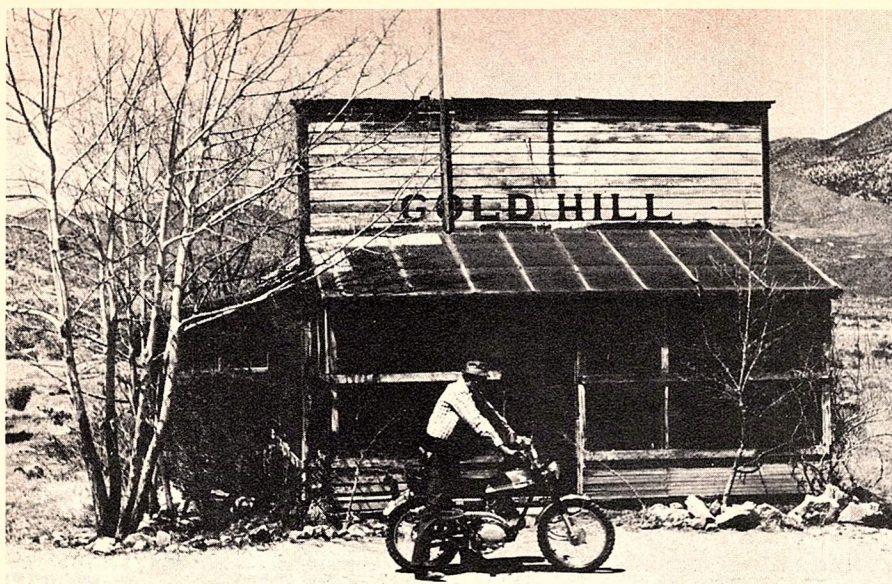
Besides all of the leg work involved to get permission to use these areas, they had to post a \$3,000 bond with the U.S. Forest Service to insure that they would repair all damage caused as a result of having the enduro in the forest area. After taking down the course marker cards and ribbons they will re-seed and repair damage incurred on the trails.

Part of the course was along power-line roads used by the Southern California Edison Company. The Shamrocks had to purchase a \$200,000.00 Public Liability and Public Damage insurance policy for the day in order to get So Cal Edison's permission, also.

Obviously, in view of the President's recent proclamation on off-road vehicles, this use of U.S. Forest Service land turned out to be a test for the motorcyclist. Besides the resident ranger there were several more on hand observing, and they were most curious about spark arresters.

All machines were inspected prior to starting. Club members and a couple of rangers themselves would check to see if an arrester was gutted simply by inserting a stick in the end. They found seven who had modified their spark arresters, one of these offenders was a Los Angeles County fireman. Needless to say, those seven were not allowed to start. Another twelve had lost their spark arrester devices out on the trail during the first 70-mile loop and were not allowed to continue.

The run itself was of its usual high caliber quality with the winning score being a loss of one point. A few dropped two points and many dropped three. In 1963 the Shamrocks Enduro was won with a perfect score. Bill Brokaw and Steve Hurd had cleaned the entire 100-mile course. Bill won it on the tie breaker. Brokaw's statement at the trophy presentation was, "The Shamrocks had a perfect run, otherwise I couldn't get a perfect score." And that's how the Sunland Shamrocks stand in motorcycling, perfect. With donations to worthy causes and finding a way with the U.S. Forest Service they have been bridging the communication gap for a long time. ●



Author arriving at ghost town Gold Hill, Utah, on Honda CL-100.

Following the Pony Express Trail

The Great Salt Lake Desert just 40 miles east of Salt Lake City is remote, starkly beautiful, and virtually unknown except to a few scattered ranchers, Indians, hunters, and more hardy motorcycle riders.

This ten thousand square mile area, larger than the state of Massachusetts, is one of the few remaining areas in the continental United States where motorcyclists can get away from automobiles and freeways, jangling telephones, and the hustle and bustle of civilization.

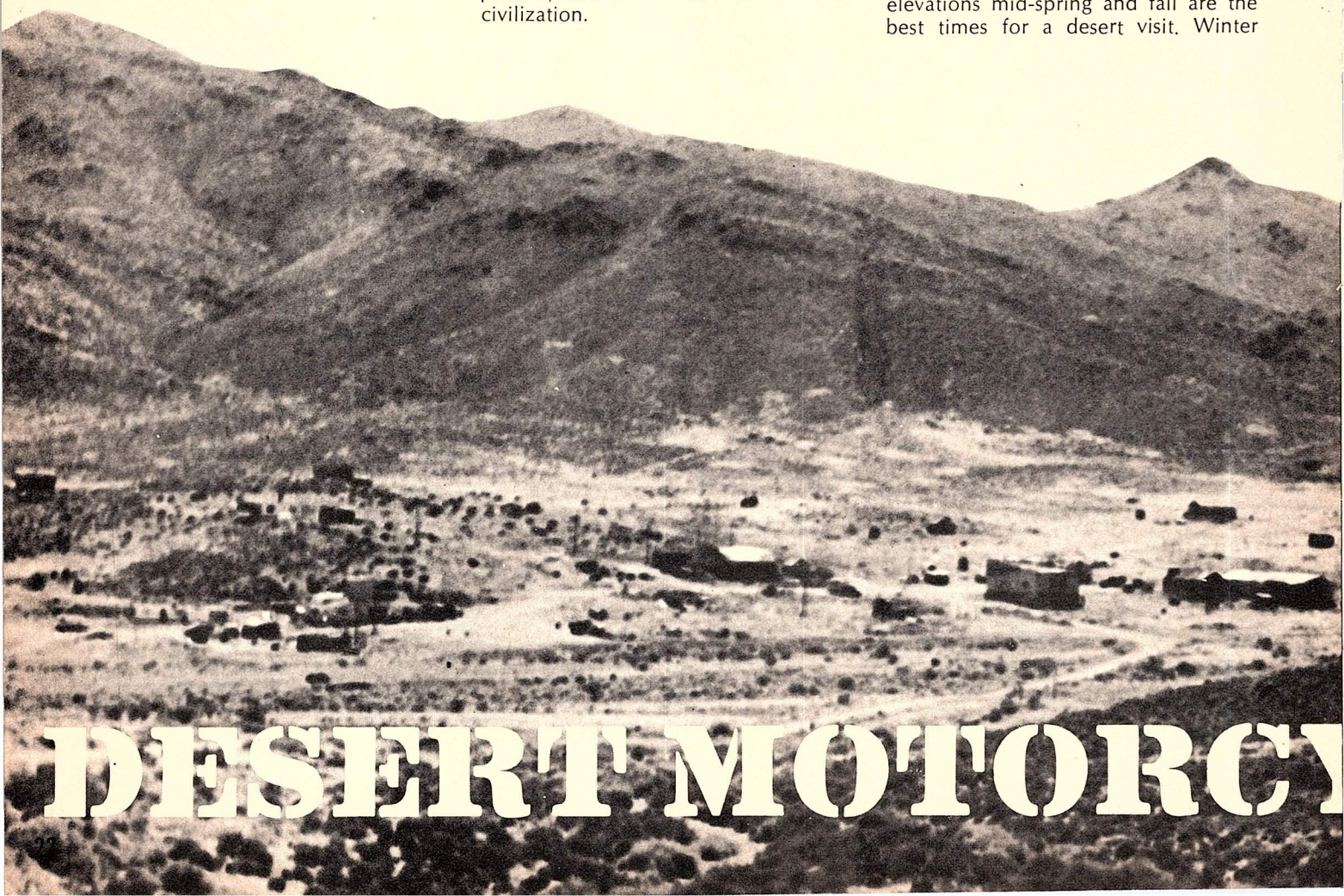
If you've got a bit of the motorcyclist's spirit, a curiosity about history and a longing to escape to a place where life is elemental and quiet, just you and your bike, Utah's western desert is waiting for you.

Some four million acres of this corner of the state are public lands administered by the U.S. Bureau of Land Management's Salt Lake district and are open to all for motorcycling, camping, hunting or fishing in accordance with Utah law. Brochures and detailed maps are available from the BLM, 8239 Federal Building, P.O. Box 11505, Salt Lake City, 84111.

Be prepared to rough it. There are no campgrounds or modern conveniences. Except for Interstate 80 on the north and Highway 6 and 50 on the south, there is hardly a mile of paved road, a telephone, or a power line in the area.

Adequate trailer park, motel and hotel facilities are available in Salt Lake City. Location and cost information can be obtained from the Utah Travel Council, Council Hall, State Capitol, Salt Lake City, 84114. From Salt Lake City it is less than an hour's run by motorcycle to the edge of the desert.

The elevation varies from 4300 feet to 12,100, the height of Haystack Mountain in the Deep Creek Range near the Utah-Nevada border. At these elevations mid-spring and fall are the best times for a desert visit. Winter



DESERT MOTORCY

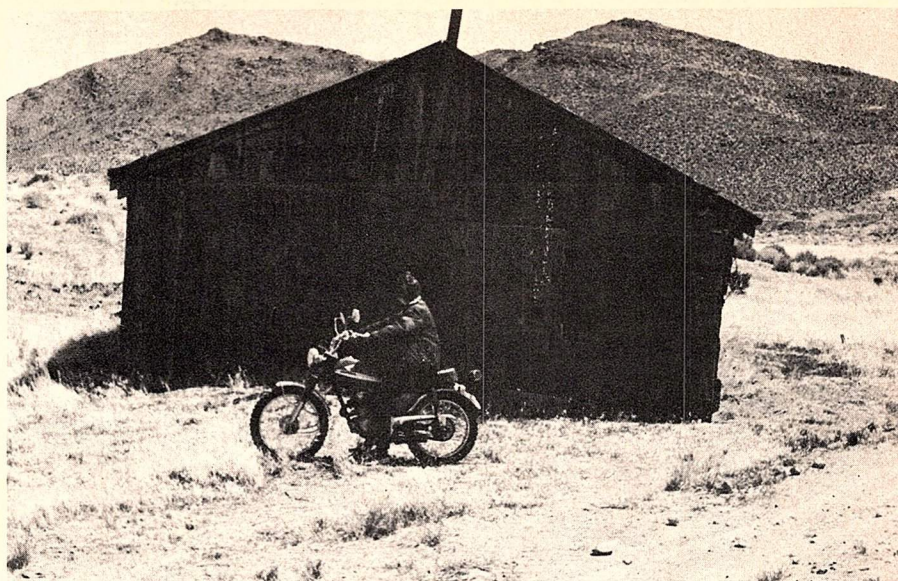
is cold, wet, and snowy; while summer is extremely dry and hot.

Contrary to what you may think about the desert, the landscape varies—the southern half of the Great Salt Lake desert is flat, table smooth, lifeless, a muddy trap to any vehicle that ventures into it. The deep, narrow ruts left by wheels of the heavily laden wagons of the Donner Party, still visible, serve as a stark reminder of the danger beneath the alkaline soil. Most of the items discarded by the Donner Party to lighten the wagons have been picked up over the years by eager artifact hunters.

The world-famous Bonneville Salt Flats, scene of speed endurance tests, are further to the west. You may want to take the time to visit this speed course where world automobile and motorcycle records are set. Some years ago a Utah driver, Ab Jenkins, made the course world famous with his special car "Mormon Meteor." That racer is on display in the museum located in the basement of the Utah state capitol building.

South of the salt desert, bare mountains jut up from the flatlands like brooding prehistoric monsters. Vegetation is sparse until the desert blends into semi desert; and the higher mountains are covered with Juniper, pinion pine, and sagebrush. In springtime wild desert flowers and cactus bloom in profusion in some areas.

Totally out of character with the



Author's son looking over one of many deserted buildings.

peace and tranquility of the desert is Dugway Proving Grounds where weapons of terror are tested by the Army. A short time ago about 5,000 sheep mysteriously died of some type of poisoning which had been blamed on the Army chemical testing program. The story made nationwide news coverage. Later it was discovered that the sheep died from eating halogeton, a noxious weed commonly found in the western desert.

If you've an interest in wildlife there are mule deer, cottontail and jackrabbits, some antelope and a small herd

of feral (wild) horses in Cedar Mountain area. Sage grouse, chukars, and doves in abundance can be hunted in season. By keeping a sharp lookout, foxes, coyotes, bobcats and cougars might be seen from time to time in the more isolated areas. A good pair of binoculars is a must, if you've got room on your bike.

Probably the most interesting reason for venturing into that wilderness is its fascinating history. Traveling south out of Salt Lake City on State Highway 68, or Redwood Road as the natives call it, to the Lehi cutoff or the junction



YCLE ADVENTURE



Vacant eyed relic of a past era.



Cut off for the Pony Express road stretching 104 miles west into one of America's most remote areas.



Camp Floyd State Park.

of State Highway 78, then west on 67 to the small hamlet of Fairfield (roughly 40 miles from Salt Lake City) you will find the Camp Floyd State Historical Monument.

In 1858 the big fort bustled with activity as cavalymen moved out on daily patrol toward Lookout Pass. The 2500 soldiers stationed at Camp Floyd made it one of the biggest army posts in the United States.

The fort is gone now. All that remains is the former officers quarters, a monument now maintained by the State Park Service. A half mile away is the military cemetery. Like a small green oasis in a sea of sagebrush, there are neat straight rows of flat gray headstones naming the American soldiers who had died while on duty with the United States Army over 110 years ago.

As you walk among the headstones in the old cemetery reading names, ranks, births and death dates, history comes alive. Who were these men with Irish, Scottish and German names who came to this wilderness? Here are five men who all died on the same day in 1859. Were they killed on patrol in the Goshute Indian country to the west? Some were grizzled veterans of the Mexican War, others only seventeen or eighteen years old. What stories they could tell us of the turbulent times in which they lived and died!

Five miles west of Fairfield you leave Highway 73, take a short cut across to Faust, hitting and crossing State Highway 36.

At this point you will follow the old Pony Express route across the desert. A sign indicates that the next village, Callao, is 104 miles! Be sure you have enough gasoline, water and food. Include a good map, a compass, a first

aid kit, and anything else you feel is necessary for your safety and comfort. Don't take chances. The road is dirt, and passable to motorcycles. Rain turns the road into a muddy bog making it pretty rough to traverse until it dries out. It would be wise to leave word with someone where you are going and estimated time of arrival. Nearly all counties in Utah have "Jeep Poses" who rescue stranded motorcyclists, campers, hunters, hikers, etc.

The lonely, dusty road, in pioneer days called the Lincoln Highway, snakes endlessly in the distance through the sagebrush. Along its route there is the smell and feel of history.

Thundering over this very road, young, daring riders on the Pony Express rode hell bent for leather for 16 months in 1860-61. During the next nine years, luxurious Concord coaches of the Overland Stage bounced over the dusty expanse of desert.

Pony Express riders reflected the tempo of the times. Life was rugged. Its path was strewn with difficulties at every turn.

That was 112 years ago. Times were tough. As you feel the vibrating engine beneath you and the cycle moving over the rutted road you imagine yourself as a pony express rider wondering if Indians lurk behind the next outcropping of rock.

While life styles change with the passage of time there will always be an effort to touch history, in some small, however insignificant way. In a modern, complex society there are those among us who need the challenge of facing danger, of becoming elemental men again. The motorcycle is our means of escape.

At space intervals of about 25 miles were the relay stations. The first point

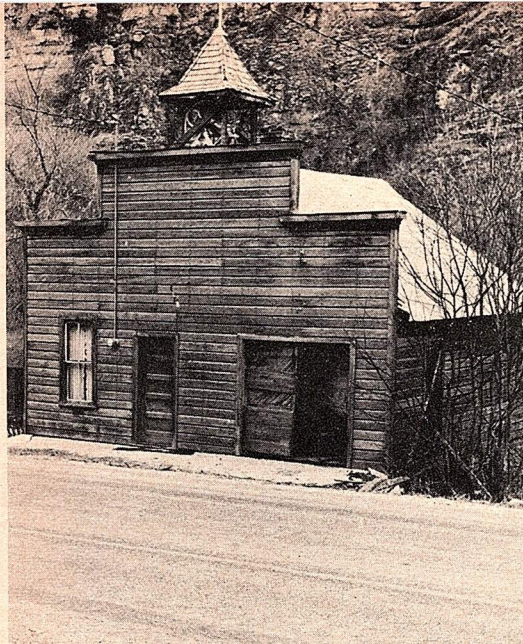
of interest is at Lookout Pass, site of one station. Nothing remains but a strange monument—a rock fenced cemetery. The graves are marked "Jenny Lind," "Toby Tyler," "Bishop," "Josephine Bonaparte" and "Phoebe." All were dogs buried by Horace and Libby Rockwell who homesteaded in Lookout Pass from 1866 to 1890. Ironically, outside the walled cemetery lies the unmarked graves of three nameless pioneers!

The next stop is Simpson Springs, the only source of fresh water for several miles in any direction. There are a few picnic benches under the cedar trees surrounding the spring. The foundations of several buildings remain. This place was named for one J. H. Simpson, a topographical engineer, who was sent out from Camp Floyd and told to find a route to Carson Valley.

From Simpson Springs looking south you can see Drum Mountain; to the west and see three ranges of mountains, first Dugway, then Fish Springs and finally Deep Creek; to the north-west is Pilot Peak in Nevada; and on a clear day you can see the Black Pine Mountains in Idaho.

Now you are seemingly beyond civilization. Only an occasional high flying jet and the whine of your bike's engine reminds one of the outside world. Next you will see Fish Springs where the government has diked thousands of acres of fresh water for a wildlife refuge.

Fifteen miles later you are in Callao, a small village, where you can obtain gasoline. This small hamlet has the distinction of having one of the few school houses in the United States covering a nearly 100 square mile area, with eight students.



This old building in the semi-ghost town of Ophir, Utah, is a forlorn reminder of better times.

The charm of Callao is probably the tranquil atmosphere. "Main street" is studded with huge, old cottonwoods. The natural environment has been little changed in the past 60 years. There is no pollution, no television, no telephones and no traffic. Should any emergencies arise it is 85 miles north to Wendover, about 100 southeast to Delta and over 100 miles to Ely, Nevada. On up the road is Ibapah, made up of a few isolated ranches. The Ibapah Valley, 20 by 40 miles, is probably one of the most remote areas in the country.

Nearby is the Goshute Indian Reservation, split down the middle by the Utah-Nevada border. Captain John C. Fremont, in his writings of his western explorations, described the Goshutes in the most pitiable terms, as they roamed naked searching for grasshoppers and lizards. These Indians now have Government built houses and send their children to school.

The Goshutes attacked Eight Mile Station, just over the Nevada border, on March 22, 1863. One white man was killed and another tortured to death. Lying in ambush, the Indians waited for the stage. They shot the stage driver and a passenger riding the boot. Another passenger climbed from inside the coach to the driver's seat and drove the team in a mad dash to Ibapah. Eight Mile Station still stands today, its rock walls in a good state of preservation.

About three and a half months later, the Goshutes struck again, killing four soldiers and a wagon driver at Canyon Station just east of Ibapah. The station was burned and the driver, apparently still alive, was thrown on the embers of the burning station.

Northeast of Ibapah is the ghost



One of the many gravestones at Camp Floyd Military Cemetery.



Ancient petroglyphic Indian writings on Stansbury Island in the Great Salt Lake.

town of Gold Hill. Three thousand people lived here at one time, and a narrow gauge railroad hauled ore to Wendover. Now Gold Hill lies forgotten, a relic of the past.

Valuable ore was first discovered in 1858 by a group of wandering gold seekers traveling west to the gold fields in Nevada and California. From then until 1946 there were three boom periods; the first gold, the second copper, and the third arsenic.

You may want to visit the empty diggings and vacant eyed shacks that mark the blasted hopes of men who grubbed in the earth for wealth.

Then west a few miles to Alt. Highway 50 in Nevada, north to Wendover and back to Salt Lake City on Interstate 80, among the madly racing cars and diesel trucks to the wonders of civilization!

There are many other things in the desert to intrigue the cyclist, no matter what your "thing" might be. If you are a rock hound, the western desert is a paradise for geodes and other rocks and minerals. Petroglyphs are common if you know where to look. Indian artifacts, predating Christ, are commonly found by amateur archeologists.

So rough and rugged is this desert terrain that the annual Pony Express 200 motorcycle classic provides an opportunity for the thousands of motorcyclists about the country to at least reflect on the kind of off-highway riding that prevailed many years ago.

The Pony Express 200 mail run is from Lookout Pass to Gold Hill—178 miles. All classes of trail bikes and enduro machines are eligible. Class breakdown has been 100, 125, 250 and open. Riders of all ages and talents are eligible. Last year 18 of California's



Author arriving at small Utah village of Callao after 104-mile ride over old Pony Express trail. Next stop is Gold Hill, then Ibapah.

top riders registered.

The participants, modern day pony express riders, hope to find their way through the torturous sage and sand run marked by helium filled balloons 200 feet in the air. First to make it qualifies for \$1500 of the \$4000 prize money.

All riders of the 200 can expect to see are other riders, the helium filled balloons, other markers, and the occasional desert tourists—lizards, snakes, kangaroo rats, sparrow hawks, and an occasional prairie dog. It is a rough, dirty run. Any rider who makes the entire 178 miles is considered extremely lucky.

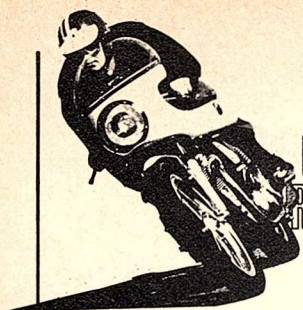
This is the western Utah desert today. One of the few remaining areas in the United States where motorcyclists can enjoy the thrill of riding unencumbered by fences, automobiles, no trespassing signs and other marks of civilization.

Leave the desert as you find it. Treat it as you would your own property. Respect ranchers property and help us erase the "Hells Angels" image the public has for motorcyclists.

The desert is no tourist Mecca. Water is scarce, gasoline almost non-existent, roads dusty and rough. There are no tourist accommodations. But there's plenty of room to ride your bike.

There's the high mountain peaks, red in the glow of a desert sunset. There are fork tailed swallows doing their graceful ballet in the evening sky. There's the gurgle of a stream, and the faint bark of a coyote. There is a bigness and breadth and a cleanness to this land and it is open to all. ●

By Robert L. Foster



THE EUROPEAN RACING GAME

(Text continued from page 6)

his eyes on the International Six Days in Czechoslovakia would support. In fact, non-British entries are limited to: Spain (15), Sweden (3), Denmark (2), with Australia, France, West Germany, and the U.S.A. only 1 each.

If the Irish Republic is regarded as foreign then they number 14. The notable feature is the 15 strong Spanish entry hardly a land of trials Experts but that producing the winning Bultacos, Montesas, and Ossas. (All of these makes were brought into being by British Trials Experts such as Sammy Miller for Bultaco, Don Smith for Montesa, and Mick Andrews who won the 1970 and 71 Scottish.) After a disagreement with Montesa, Don Smith left them and has not been in competitive trialing for 2 years but has now been signed up by Kawasaki to build and ride and so develop an all new trials bike. Don Smith, a former

European Trials Champion, will endeavor to put Kawasaki in the same success bracket as the dominating Spanish makes. The efforts of the other Japanese makes has been pathetic in that they have tried to sell a dual-purpose enduro cum trials bike which is about as pointless as using a moto cross iron for track racing.

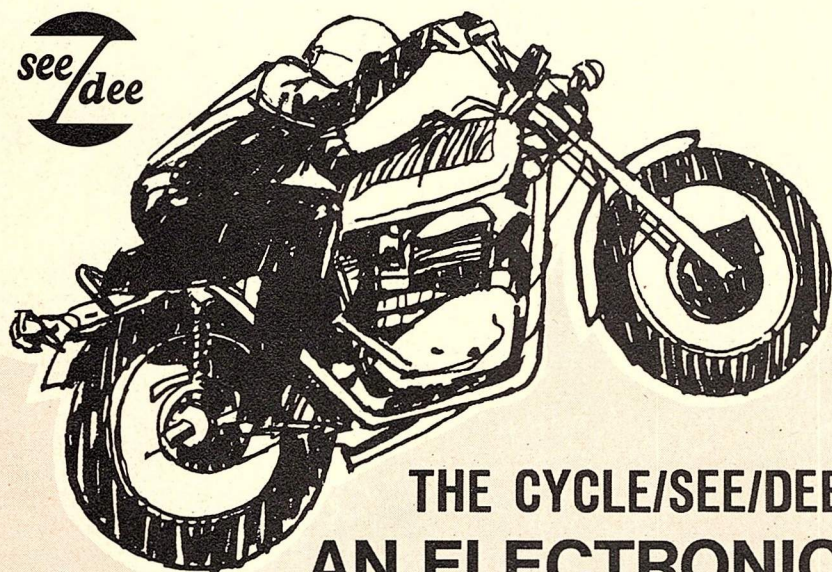
First pictures of the new Cheney 125cc Sachs powered 6-speed moto cross special—destined for the European and U.S. markets—give top marks for looks allied to functional layout. Weight at 160 pounds proves the use of the high quality materials so well known in all Cheney products. This is a bike for serious competition and not schoolboy scrambling. The alternative Zundapp engine would obviously slot right into the frame kit.

The old American saying that there is no substitute for hp was borne out at Atlanta where the Daytona winning 1—2—3 Yamahas were relegated to 8th although ridden by top ace Kel Carruthers. It is expected soon that a full 750 Yamaha will be amongst the entry in Formula 750 which is likely to be the top and dominating class in International and National racing just as the 500's have always been the crowd-pullers.

The use of titanium in frame and wheel construction is to be banned by the FIM as from 1973. How tests will be made is open to question. The suggestion is the use of a magnet, but other non-magnetic alloys such as magnesium and aluminum are not banned and in general use. Allied to these proposals is the limits on total machine weight reductions. So, the complete machine examiner or scrutineer will be armed with the growing lists of aids to his title; 1 decibel noise meter, 1 magnet, 1 pair scales, 1 tape measure, 1 pen and bay boy note book, and 1 big stick.

After the successful Easter performance in England by Cal Rayborn on his Harley—and this on the old iron motor—the question asked is when will same rider import a Harley for the English circuits? The U.S. factory could usefully send over a sponsored Harley from which sales could well accrue as there seems no limit to the price obtainable for good winning machinery.

The new Greeves 380 Q.U.B. model has at last come into the hands of private riders and early reports indicate that the old firm have a winner. The 44 bhp and in a useable range of rpm is greater than that of the 400 Husky. A bright future seems ahead for this factory which, although small in size, has gained great respect for its products. We hear that by the end of the year AJS will have a new moto cross model on which over 2 years of experiment has been undertaken.



THE CYCLE/SEE/DEE AN ELECTRONIC IGNITION SYSTEM DESIGNED SPECIFICALLY FOR MOTORCYCLES.

Install a CYCLE/SEE/DEE on your cycle today in thirty minutes and get improved performance. Provides positive ignition at all speeds under any condition and produces fire power at the plug to match the ignition requirements of the engine. Keeps engine in tune and operating at peak efficiency. You will feel the difference right from the start. Three year warranty.



ONLY **24⁹⁵**

Sold by Better Cycle Dealers Everywhere
WRITE FOR FREE LITERATURE

JUDSON

RESEARCH AND MFG. CO.
CONSHOHOCKEN PA. 19428



IMPRESSION:



THE BULTACO TIRON

**A
Masterpiece
of a
Mini-Cycle**

Back in the late 1920's and the 1930's a man named Ettore Bugatti created some of the most desirable sporting automobiles ever made. Bugatti was a genius who exercised complete control over the manufacture of the machines which bore his name. Prior to the introduction of Bugatti racing cars competition machines were great heavy devices powered by immense engines. To Ettore Bugatti goes the credit for designing the first lightweight, agile racing car. These lightweight racing machines won literally hundreds of races and created a standard for excellence that endures to this day.

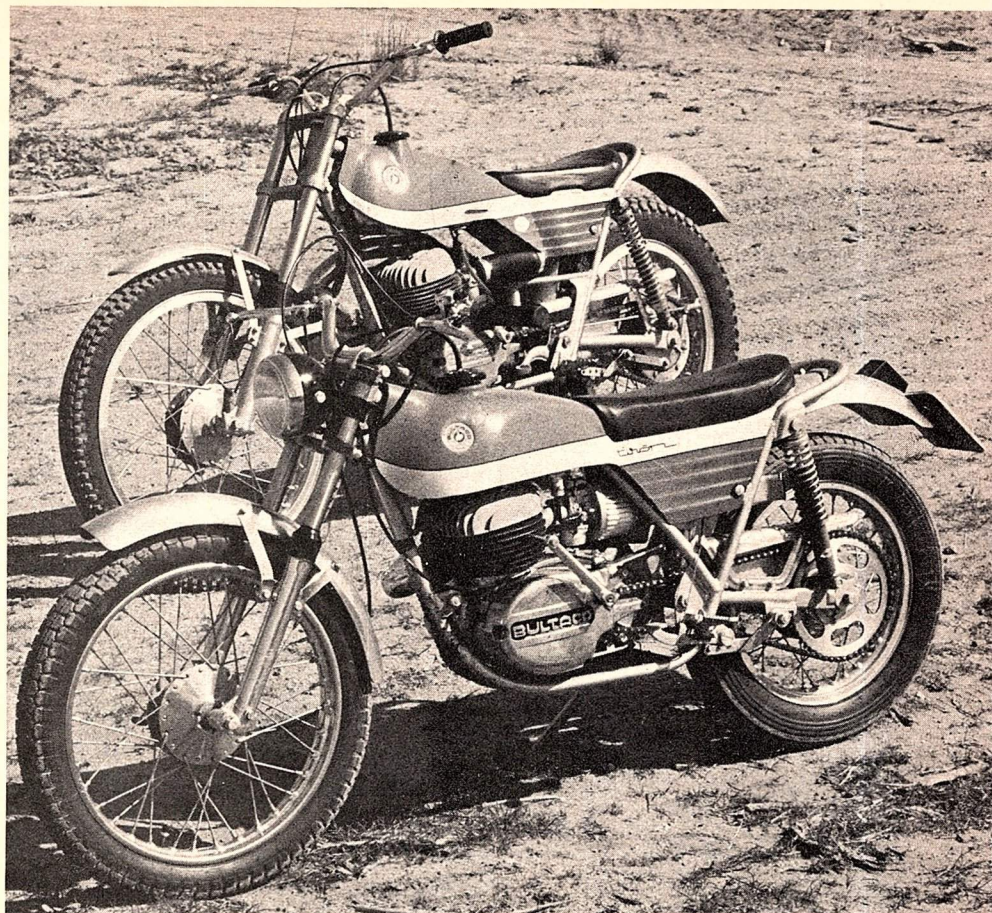
In some ways Bugatti was a dictator. He knew exactly what he wanted, and

the men who manned his small factory produced it to his exact specifications. When Bugatti's young son reached a certain age his father designed a miniature car which was an almost exact duplicate of one of the factory's most successful racers. Wealthy customers saw this "toy" and demanded similar machines for their fortunate offspring. A limited number of these miniature cars were made. Today, any antique automobile collector worthy of the name would give eye teeth to obtain one of these very rare little machines.

In the years since Bugatti's time the automobile industry has changed drastically. No longer is it feasible, or economically possible, for an automobile manufacturer to function in the manner in which Bugatti did. Fortunately, motorcycling and motorcycle manufacturing have not yet succumbed to the "Detroit syndrome." Bugatti has his counterparts in motorcycling: His name is F. X. Bulto.

Senor Bulto is a designer, an engineer, and a man dedicated to creating really fine sporting motorcycles. Much like Bugatti in an earlier time, Bulto keeps a very close eye on the products that emanate from his factory. Almost everything that bears the Bultaco name carries the imprint of Senor Bulto. Now, also like Bugatti, Senor Bulto has created a machine for children. This new Bultaco, called the Tiron, falls into a class of machines that has come to be known as mini-cycles.

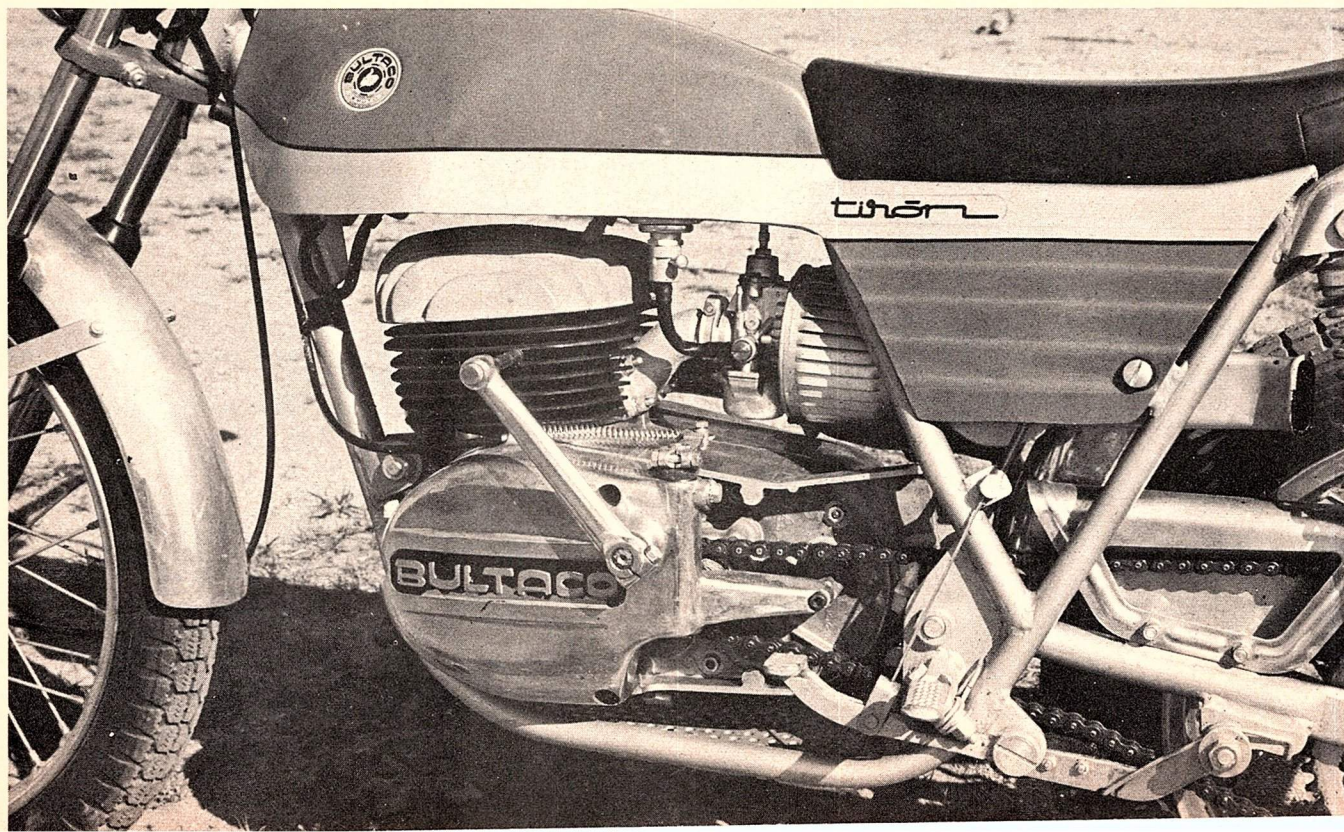
As in the past, we had to depend on youngsters for actual riding impressions of the machine. No one had to tell us that the Tiron is an exception-

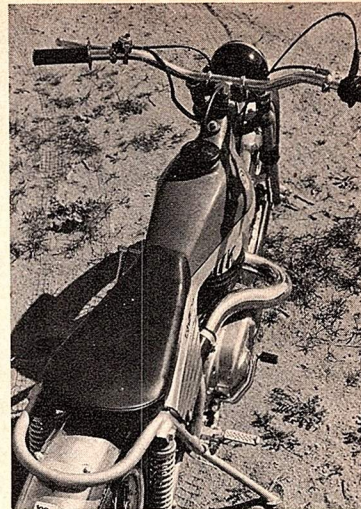
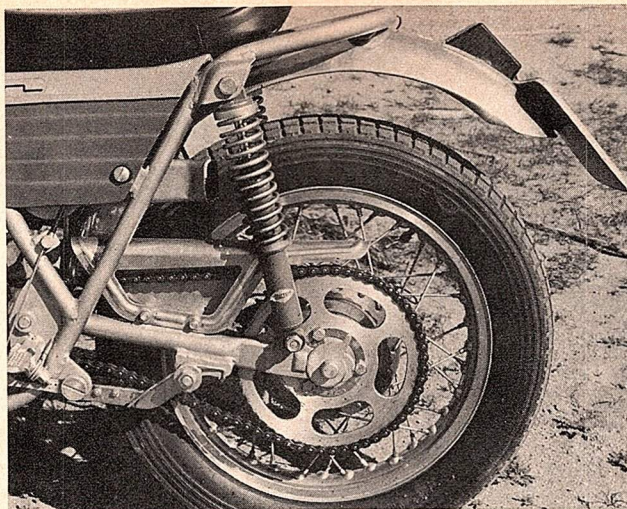


ally well made mini-cycle: It's obvious just looking at the machine. The fiberglass gas tank/seat base is similar to that found on the very popular Bultaco Alpina. The "glass" drops down on either side of the machine to form covers which hide the muffler. Finished in brilliant red with silver trim, the gas tank has a capacity of 1.3 gallons.

The seat is a bit firm by adult standards, but seemed just fine for the youngsters.

The ratio between tire sizes is in keeping with modern accepted standards, although on a smaller scale. The rear wheel on the machine is 14 inches in diameter and the front rim measures 17 inches in diameter. The rim used





at the rear of the machine is a "shoulderless" Akront, at the front a more common steel rim is fitted. Both rims are laced to full width alloy hubs, and both tires have a very mild Trials Universal tread pattern. Protection for the rider is provided by a pair of well balanced light alloy fenders.

Looking like a scaled down frame from one of the larger Bultacos, the tube work on the Tiron should easily withstand the hard usage of young riders. Both the backbone and the front down tube are large in diameter, the underside of the engine is well protected by a perforated steel skid plate and the rear sub-frame is extremely strong. The swinging arm pivots on robust steel plates which also act as the mounting points for the footpegs. This peg location is typical of trials configuration and it means that it is necessary to move the right foot off the peg to make gear changes. This set-up is fine for trials riding but it can be a bit awkward for just plain cow trailing.

The practical evaluation of the suspension on El Tiron had to be left to our young test rider. To our adult eye the suspension looks right, and according to our testers it is right. With an adult in the saddle the rear shocks tended to "collapse" allowing the rear tire to come very close to the fender. The front forks seemed better equipped to handle the weight of an adult. Even with a good size oaf riding the ma-

chine the front forks did an admirable job of absorbing the jolts. Kenny Alexander, one of the top mini-cycle racers in Southern California, took the Tiron for a ride and returned with the information that the handling was, "excellent." He should know!

The engine in the Tiron should be capable of withstanding any abuse a youngster can heap on it. From the base of the cylinder down the engine is identical to that found in the 250cc Bultaco. The crank, primary drive, and 5-speed transmission are all identical to the big Bultacos. Total displacement of the engine is 99.5 cubic centimeters and the compression ratio is 8.5:1. A 24 millimeter Zenith carburetor passes the fuel/air mixture into the crankcase. Spent gases are carried away through a high pipe which is tucked in well out of the way of the rider. The tip of the exhaust system is diabolically angled so that it spews exhaust goo all over the left rear shock.

The small carburetor coupled with mild port timing make the engine very tractable. Starting is no great problem, even for an average-size 8-year-old, and the machine will usually fire by the third kick. Because of its detuned nature the Tiron is a very willing performer. Most of our miniature test crew put the bike to its intended use and spent considerable time in low gear, pottering over logs and climbing and descending steep slopes. After much of

this sort of use the poor beastie loaded up a plug. Thus, we discovered one of the true marvels of this little motorbike: in order to change a spark plug you've got to remove the gas tank. It's only necessary to remove three bolts to get the tank off, but it's still a pain in the "plug wrench."

The need to remove the gas tank in order to get to the spark plug, and the way in which the exhaust pipe blows goo onto the left rear shock were the only major complaints we had with the Bultaco El Tiron. The bike is beautifully made, it's strong as a bull (pardon the pun), and, according to our test riders, it's just about the perfect mini-bike. As we tested it, the El Tiron goes for \$575.00. That's a lot of money for what many people will consider a sophisticated child's toy. A close examination of the Tiron shows that it takes just as much time and effort to build as just about any other machine in the Bultaco line. We are told that El Tiron will be a limited production machine, meaning that no great quantity will be produced. We feel that those that do come off the assembly line will be snapped up by parents who are impressed with quality of workmanship and good basic design.

Loosely translated, El Tiron stands for the Novice. The name suits the machine. We can't think of a better bike with which to introduce a youngster to the sport of motorcycling. ●

SPECIFICATIONS.

MAKE	BULTACO
MODEL	EL TIRON
PRICE AS TESTED	\$575.00
ENGINE TYPE	2-STROKE, SINGLE
BORE	49.5mm
STROKE	51.5mm
DISPLACEMENT	99.5cc
COMPRESSION RATIO	8.5:1
B.H.P. AT R.P.M.	N.A.
CARBURETOR	24mm ZENITH
FUEL CAPACITY	1.3 GALLONS
LUBRICATING SYSTEM	GAS/OIL MIST

CLUTCH TYPE	MULTI-DISC, WET
FINAL DRIVE	CHAIN
STARTING SYSTEM	KICK, FOLDING CRANK
TOP SPEED	58.7 mph
TIRE SIZE	FRONT 2.50x17—REAR 3.25x14
SUSPENSION	FRONT: TELESCOPIC FORK REAR: SWING ARM
FRAME TYPE	CRADLE, TUBULAR STEEL
WEIGHT	153 POUNDS
WHEELBASE	45 INCHES
GROUND CLEARANCE	8.5 INCHES
PEG HEIGHT	12 INCHES
SEAT HEIGHT	25.5 INCHES

New Products

FOR MIDI'S ON MINI'S

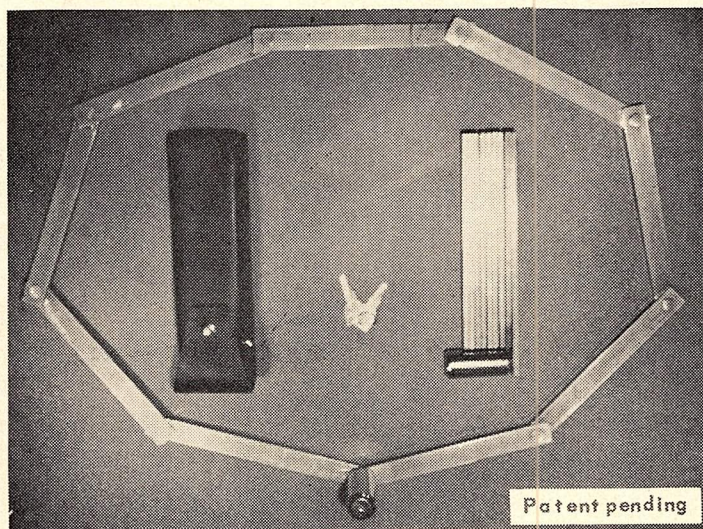
The Steen Mini-Cycles aren't just for kids it seems. Big folks are finding them fun as well, and in a way have created a problem. Designed primarily for youngsters, the suspension was calculated to

be just right for a 100-pounder, riding in a normal fashion. Add a little weight—anything over 25 lbs. more, or begin to race cross country—and the fork springs were too low in rating. It happened regularly, but changing the original springs would mean too stiff a ride for the kids, still the prime mini-bike market.

The answer is a conversion kit, easily installed, with heavy-duty springs for competition and/or big kids. Another item "asked for" is included: Neoprene rubber fork boots with spiral-type hose clamps for secure mounting.

You'll find the kit, packaged as shown, at Steen dealers for the new X-100 Mini-Motocross and priced at \$3.95 per kit. The parts also fit the earlier F-100 bikes. The kit is for the Ceriani fork-equipped models only and is unnecessary for the optionally-sup-

CAST OFF YOUR CHAINS! THE SHACKLE IS HERE



Stainless steel 5 ft. with lock and keys folds to compact 2½" x 9"
Black Leather case with strap
Each joint withstands more than 1000 lbs. pressure
Secure your bike to any immovable object - Light pole, parking meter etc.

\$19.95 plus handling (Add. \$1. east of the Mississippi and \$2 west of the Mississippi) No C.O.D. Reg. check or money order

DEALERS INQUIRES INVITED ON LETTERHEAD

Send order to: **THE SHACKLE** P.O. Box 186 Weymouth, Ma. 02188
 Phone 617-331-0017
 Mass. Res. add 3% sales tax

Name

Address

Amount

- Self contained lock
- All purpose unit that answers your need
- Strap on bike or belt
- Protect your bike the easy way

Safer than chains - resists bolt cutters, files, hack-saws

WHITECRAFT ENTERPRISES, INC.

MC8



plied leading link front forks.

To order direct, address Steen's Inc., 1635 W. Valley Blvd., Alhambra, California 91803, and specify item #691-I. A brochure on the Steen X-100 will be sent for 25¢, postage and handling.

FOR 650 YAMMIES

In keeping with a policy of supplying fully adjustable KONI shock absorbers as a "bolt-on" acces-



sory, Bikoni Limited is introducing a unit, complete with 88 lb. external spring, for the Yamaha 650cc XS-1 Twin.

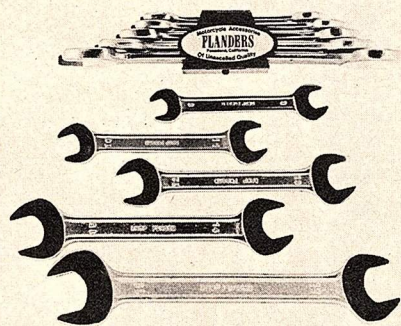
KONI shock absorbers have been the choice of race winners in all types of competition and as-

sure maximum stability, precise control and greater riding comfort in addition to being adjustable, other than the conventional spring pre-load that are normal with other suspension units.

Most motorcycles will accept KONIs. Specifically designed and engineering KONI models are available for AJS, BMW, BSA, Guzzi, Honda, Husqvarna, Kawasaki, Laverda, Maico, Norton, Suzuki, Triumph, and Yamaha. KONI shocks are sold by dealers coast to coast through ten strategically located KONI distributors in the United States.

5 MIGHTY METRICS

Here's a new low-priced wrench set from Flanders. This item is just the ticket for the young rider who is starting a tool box. The 5-piece open end wrench set is quality chrome plated and clicks together with its own holding clip. The metric sizes incorporated in the 5



wrenches are 8mm, 9mm, 10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 17mm, and 19mm. These guaranteed wrenches are made in India and are surprisingly well finished considering the price.

Suggested retail for this fine item is \$3.50, and the Flanders part number is 519AL. Most motorcycle dealers stock this new, but fast moving, item or it can be ordered through Flanders, P.O. Box 2297D, Dept. MC, Pasadena, California 91105.

SURVIVAL!

Designed to sustain life for several days when lost or stranded, the new Universal Survival Kit contains more than a dozen carefully selected survival essentials including an easy to read instruction booklet written to inspire confidence in the user.



The kit weighs only 1½ pounds, and all items are neatly packed in a 5"x4"x3" rainproof pouch with belt loop for convenient carrying.

Items included are food, aspirin, fishing hook and line, copper wire, adhesive tape, 30-foot nylon cord, metal match, sterno, rescue blanket, cable saw, 14-ounce aluminum cup, two-bladed knife, flashlight with batteries, and signal mirror.

Considering the life you save may be your own, \$19.95, postpaid, is really a bargain! Satisfaction is guaranteed from, London Sales Company, P.O. Box 323, Dept. MC, Redondo Beach, California 90277.

(Text continued on page 67)

LEARN TO WHEELIE!
by Jack B. Watson

Any bike from 50 cc to 500 cc for 300 feet or more
Breathtaking wheelies!

\$3.49

Learn to HILL CLIMB!
by Jack B. Watson

Cow trailing or competition. Also covers how to ride down steep hills.

\$3.49

HOW TO RIDE IN SAND

Learn from the desert riders

\$1.00

HOW TO USE THE FRONT BRAKE

Stop in time. It can save your neck

\$1.00

HOW TO BUY A USED MOTORCYCLE
By JACK B. WATSON

Don't be gypped. Learn to spot a lemon. Save money.

\$2.98

YOUR MONEY BACK IF NOT COMPLETELY SATISFIED

Check the boxes next to the books you want and send cash, check or money order to **POWER RIDER CO.** Dept. 35, Box 158, Saugus, California 91350.

California residents must enclose an additional 5% sales tax. Allow 4 weeks normal delivery or enclose \$1.00 for rush 1st class mail.

SPECIAL OFFER

Both Learn To Wheelie and Learn To Hill Climb
\$5.98

ALL FIVE BOOKS
\$9.95

\$ SAVE

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

A WAY TO TAME SUZUKI'S WILD TM400

A ELEMENTARY PROJECT GIVES EXCELLENT RESULTS

Nothing sells a bike quicker than neck snapping acceleration and instant wheelies. It seems all the dingalings want that power. So the people that make motorbikes give 'em what they want.

Instant power is something that can get you into more trouble than you bargained for. Spinning rear tires don't get a bite and they're always trying to pass up the front wheel. But still people purchase these super quick revving things because it's exciting trying to stay aboard. As a matter of fact few people are capable of using the power of a 400 Suzuki or Husky to its fullest benefit. They're just too quick and too wild.

I've seen Novices on 400 Su-

zukis trying to climb a slippery hill with both feet waving in the air and the handlebars going from lock to lock. They don't get very

far. On the moto cross course I've seen 'em grab a handful coming out of a turn and instantly spin out. I've also seen the rear wheel get a bite and the bike do a wheelie right off the race track because the front wheel wasn't touching the ground so he could steer it.

Don't ever try to ride one of these things at low speed. When the rpm's drop down too far everything just stops, instantly. If you're trying to delicately descend a hill and tap the rear brake chances are the engine will stop turning and the wheel locks up here, too. A compression release is the only help in getting it in motion again. Compression releases have to be fitted extra

and so does another helper for the big Suzuki TM400.

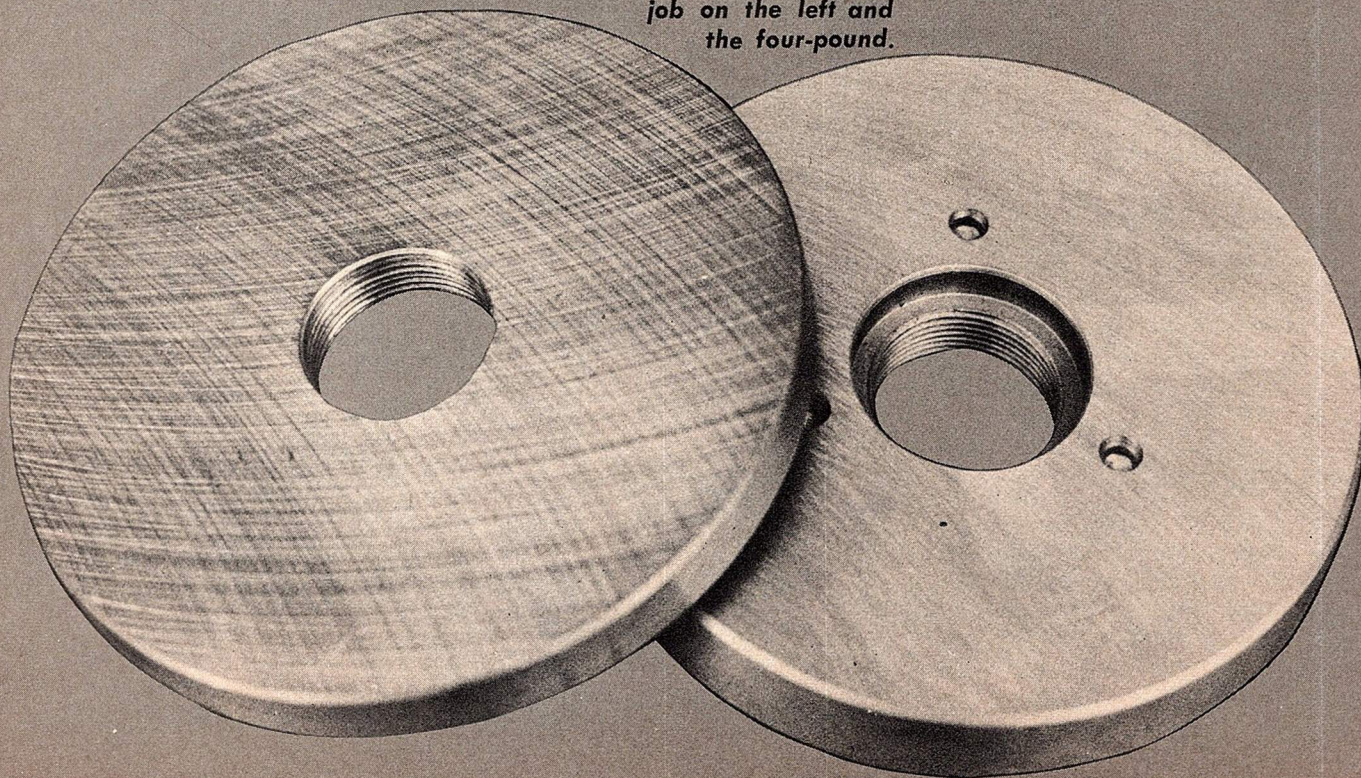
We are talking about adding weight to the crankshaft. Bultaco

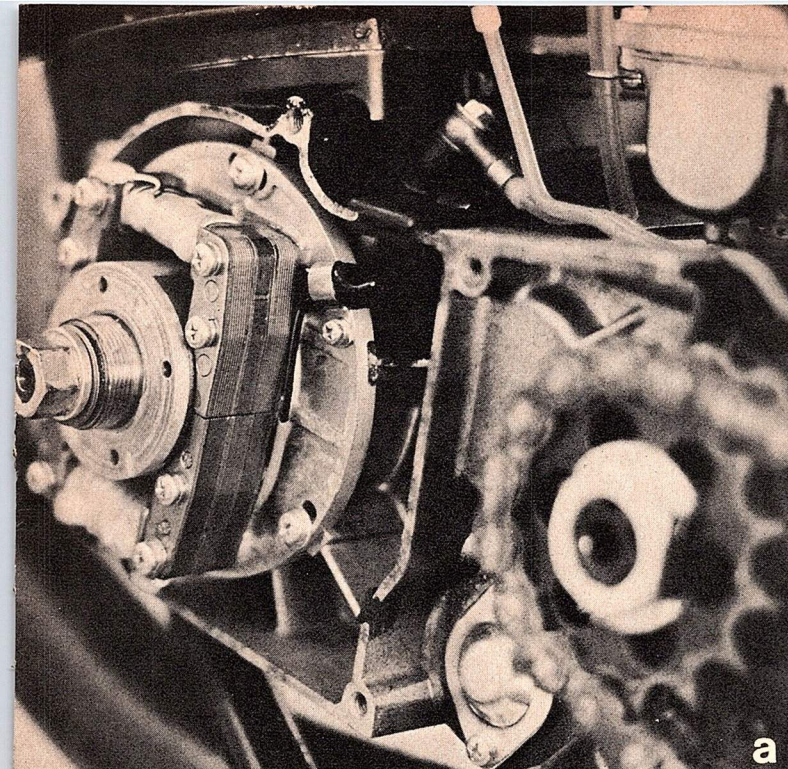
has been altering the tune of their engines for a long time just by adding or subtracting weights.

I tried a Suzuki with a four pound weight added to the crank around the Indian Dunes moto cross course. I got around the course a couple of seconds faster and with a lot less work. It took all the fight out of trying to keep the bike going in a straight line.

These weights are machined from a single piece of steel and go on in a snap. They are precision machined to enhance the balance of the engine. We shot this assembly sequence at George Clark's Woodland Hills Sportcycle, 22726 Ventura Blvd., Woodland Hills, California. The part is not that expensive and it does make a nice motorcycle out of your TM250 or 400. ●

Two crankshaft weights are available, the 2-pound job on the left and the four-pound.





a

a With the outer case removed this is all there is attached to the end of the crankshaft.

b After removing the crankshaft nut and washers screw the weight onto the rotor.

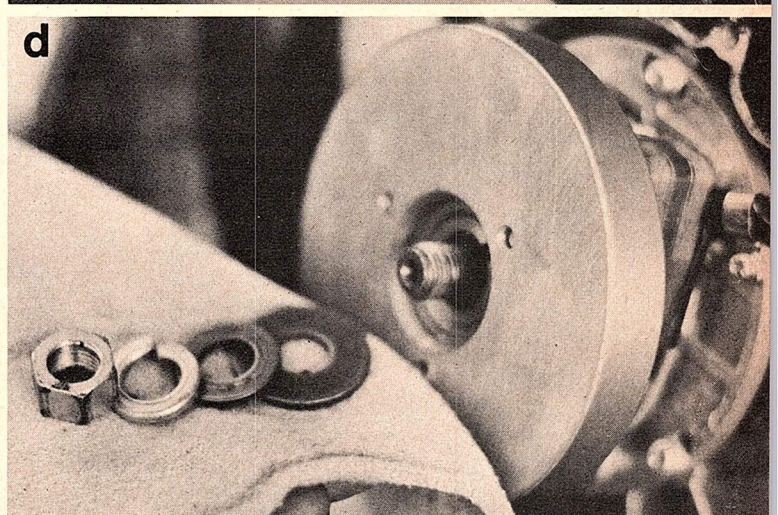
c A drift and brass hammer are used to securely seat the weight into its threads.

d This is the nut, lock washer, and washer sequence used in reassembly. The second washer comes with the weight.

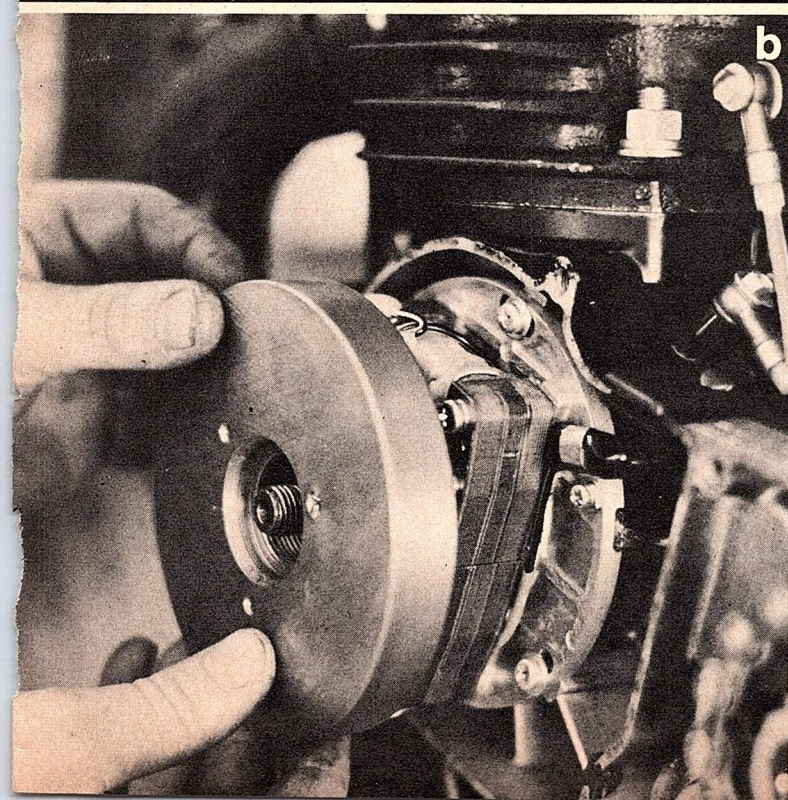
e Tighten the nut up securely, it's wise to use Locktite. The outer case cover goes on next and you're ready.



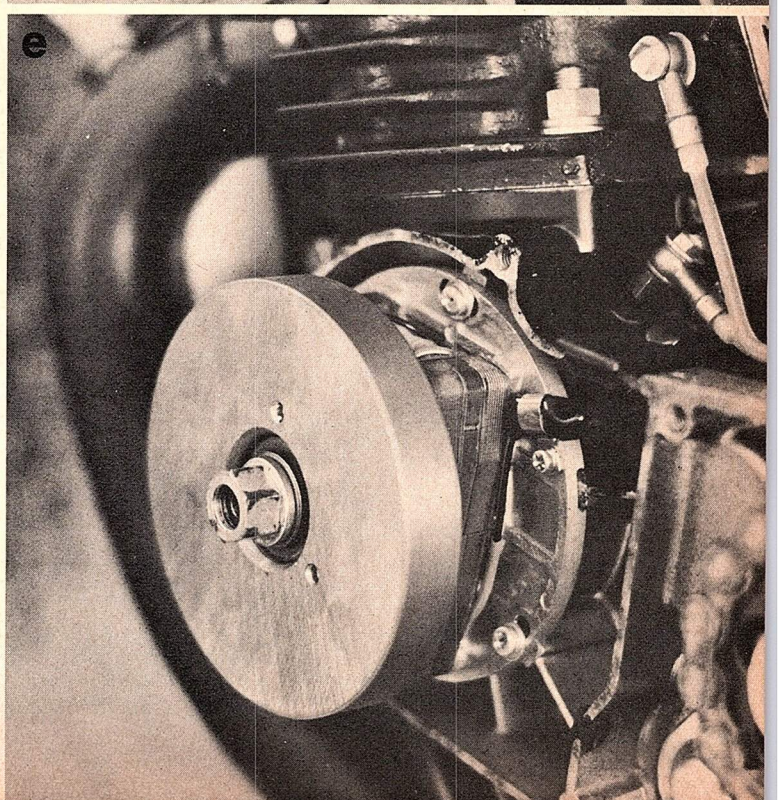
c



d



b



e

NEW! FROM GROWCO

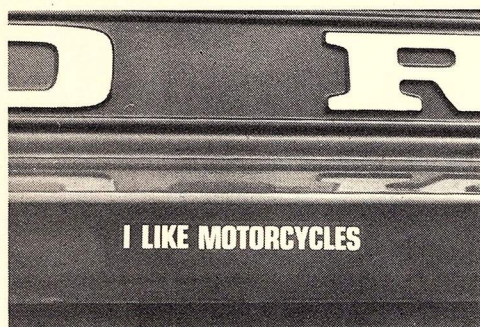
1005 I LIKE MOTORCYCLES. Here's the button that will put the finishing touch to that favorite hat or jacket. These large 1 1/4 inch pins are white with brilliant red type and sell for: 2 for \$1.00; 5 for \$2.00. ➔



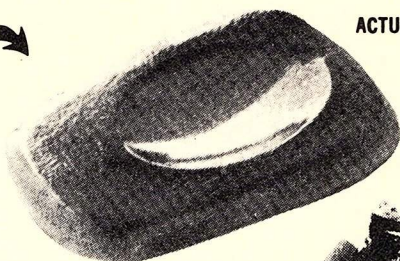
1010 PAIN HURTS. The button that is guaranteed to bring a chuckle from anyone who sees it—especially those who have gone through an unpleasant experience such as failing to see that two foot ditch while roaring through the desert at 50 miles an hour. OUCH! PAIN HURTS!! These large 1 1/4 inch buttons are yellow with black print and make a great gag gift. 2 for \$1.00, 5 for \$2.00. ➔

➔ **1009 I LIKE MOTORCYCLES.** These stickers are just the thing to dress up the rear window and bumper of your car, truck, etc.

NOT DECALS! , decals are difficult to put on and they also chip and peel in a short period of time. Our stickers are self-adhesive clear vinyl with durable white type—just peel off the backing and apply to any clean surface. These stickers are sold in a set of two; One for mounting on a bumper or outside surface, and the other is printed in reverse for mounting on the inside of a car window. \$1.00 per set of two.



1006 WORRY STONE. Trying to quit smoking? Tension getting you down? Bitten off all of your fingernails? Well here's a better way, try this ancient Indian method of relieving tension—just rub the stone with your thumb and be amazed at the calming effect it brings. Stones are hand carved from solid onyx. \$1.00 each. ➔



ACTUAL SIZE



* Please RUSH the items I have listed below to: ➔

* Name
* Address
* City
* State Zip

STOCK NO.	QUANTITY	TITLE OR DESCRIPTION	PRICE

TOTAL AMOUNT ENCLOSED *[Signature]*

\$

GROWCO ENTERPRISES, P.O. BOX 1202,
CANOGA PARK, CALIFORNIA 91304

VANS

(Text continued from page 19)

Woodland Hills, California. At the present time, the patterns are available for both the early and late model, long and short Ford van. Shortly, patterns will be available for all other popular lines of vans. With the aid of the pattern, installation of paneling is a simple matter. However, anyone undertaking the project should allow at least two full days to finish the job. The people at T & H Works Unlimited feel that quarter-inch paneling is too stiff, and they recommend thinner paneling which is easier to contour to the walls of a van.

One of the most important things a van owner must determine before he starts the paneling job is the location of any special interior lights and/or speakers for a stereo system. Obviously, all wiring must be in place before the paneling begins. Though it's not essential, insulation should also be installed before the panels are fitted into place. Insulation is inexpensive, and in addition to insulating against cold and heat it helps to quiet the interior of the van.

Once the wiring and insulation is in place and the paneling has been cut installation can begin. The first step is to drop the floor into position. After the flooring is down the ceiling is then screwed into place. Next the side panels are put into position, and the final step is to install the paneling on the doors.

The manufacturers of the Van Patterns point out that it's easier to stain the edges of the panels immediately after they are cut, rather than once they are positioned in the van. The regular size van will require five 4 by 8 sheets of paneling to complete the job. The Super Van will require six panels. Good paneling retails from anywhere around \$5.00 on up. The Van Patterns are available for \$10.95.

More information on the Van Patterns can be obtained by writing to: T & H Works Unlimited, 22056 De La Osa Street, Dept. MC, Woodland Hills, California 91364. ●

SON OF BONNEVILLE

TRIUMPH TIGER 650.

Like father, like Tiger. When it comes to power and performance, Triumph's Tiger 650 is a chip off the old champion.

Tiger's 4-stroke vertical OHV twin is a direct descendant of Bonneville's classic power plant—the same basic engine that began winning races for Triumph some quarter of a million bikes ago. The same engine that helped power Gene Romero to his '71 AMA Grand National Championship.

But Tiger is fed through a single Amal 30mm concentric carburetor. So although the engine is heavy on horses and torque, it's lighter on the gas. And its single-carb simplicity assures clean low torque performance.

Tiger is built like "big daddy," too. With a double down tube frame that's hand-welded for double strength. Through-The-Frame Oil System that makes an oil tank an antique. And precision hydraulic forks, double-damped with 6-3/4" of travel.

Lightness figures big in Tiger's cat-like roadability. It has a lightweight frame and forks, plus conical hubs that cut unsprung weight.

Triumph's Tiger 650. We call it Son of Bonneville, but it's nobody's kid brother.

ENGINE TYPE OHV—4 stroke
CYLINDERS 2
MAX. TORQUE 36.5 ft. lbs. @ 6250 rpm
BORE/STROKE 71 x 82mm
COMP. RATIO 9:1
TRANSMISSION 4-Speed gearbox
5-Speed gearbox
CARBURETOR Amal 30mm conc.
FRONT TIRE Dunlop 3.25 x 19" K70
REAR TIRE Dunlop 4.00 x 18" K70
FRONT BRAKE 8" DLS
REAR BRAKE 7" SLS
WHEEL BASE 56"
GND. CLEAR. 7"
DRY WEIGHT 386 lbs.
FUEL TANK 2 1/2 & 3 1/2 gals.
OIL 6 pts.

Triumph's Bonneville 650 shares many of Tiger's specs. However, Bonneville's max. torque is 38.5 ft. lbs. @ 6000 rpm; it has 2 Amal 30mm concentric carbs; and it weighs 387 pounds.



The Hot One
TRIUMPH

MEMBER OF
MC

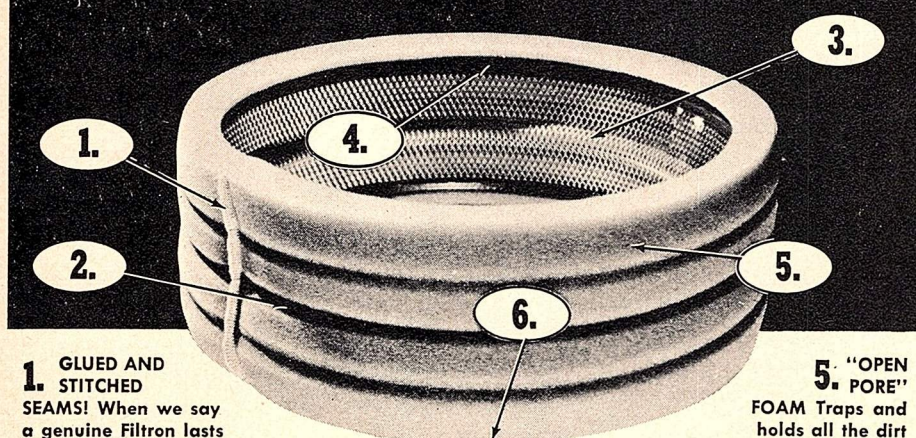
Price and specifications subject to change.

TRIUMPH MOTORCYCLE CORPORATION A DIVISION OF THE BIRMINGHAM SMALL ARMS COMPANY, INC. WEST P.O. BOX 275 DUARTE, CALIF. 91010. EAST P.O. BOX 6790 BALTIMORE, MD. 21204

Printed in U.S.A.

"THE ANATOMY OF A GENUINE FILTRON"

the finest air filter element in the world



1. GLUED AND STITCHED SEAMS! When we say a genuine Filtron lasts a lifetime, we mean it!

2. CONVOLUTED DESIGN! Grooves create pulsing action to keep dirt from clogging. A feature found only on genuine Filtrons.

3. FIRE SCREEN! No backfire-damaged foam with a genuine Filtron! Rubber edges insure positive edge seal.

4. GROOVED EDGE! Foam overlaps screen for positive sealing.

5. "OPEN PORE" FOAM Traps and holds all the dirt giving your engine nothing but pure, unrestricted air.

6. PRECISION MANUFACTURE! It's as important in your air filter element as it is in your engine. Genuine Filtrons are made to exacting standards to seal tight, work perfectly!



INSIST ON THE REAL THING — A GENUINE FILTRON!

filtron products co.

7835 Burnet, Van Nuys, California 91405



LETTERS

(Text continued from page 16)

I have asked here at home if anyone knew of Kendick Engineering but no one knows. Any help you could give me would be appreciated.

Keep up the good work on your magazine. You have a lot of good articles and information.

Alvin L. Klingler
Lawrence, Kansas

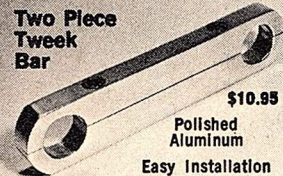
I've dropped a note to Aaron Jeppson asking him to forward the information you need. You can contact Kendick Engineering by writing them at 9520 DeSoto Street, Chatsworth, Calif. 91311.
—Ed.

Dear Sirs:

I need the address and name of
(Text continued on page 55)

**Save Time
Save Money
ORDER DIRECT
from the
MANUFACTURER**

All parts in stock for immediate delivery and guaranteed against defective workmanship.



Outside Spring Holders



Inside Spring Dampening Kits



Super Clips



Fork Cap Nuts Chromed



Lower Fork Bushings



Chromed Extended Kickstand



Extended one piece legs

triple chrome plated—centerless ground to save seals

Triumph	\$24.95	Honda	\$34.95	Yamaha	\$34.95
Harley	29.95	90, 160, 175cc		80, 100, 125, 175, 180,	
Sportster	29.95	CB305, 350 450	tube size 1-5/16"	250, 350, 305, 650	
Sprint	29.95	CL305, 350, 450	tube size 1-3/8"	Spacers	
B.S.A.	29.95	750, 500cc.		SPACERS	
		SL350 w/cap nuts		Inside spring	
Norton 1 1/4"	\$34.95	Kawasaki	\$34.95	spacers	\$2.00 pr.
Norton Matchless	34.95	90, 125, 175, 250 A7 1 1/4"		Sportster damp-	
1 1/4"	34.95	250, 350, 500		ening rods..	5.00 pr.
Royal Enfield ..	34.95	650 w/cap nuts			
Ceriani	34.95	Suzuki	\$34.95		
Hodaka		90, 125, 175,			
(all models) ..	34.95	250, 350, 500			

When ordering specify inside or outside springs. Also tube size when applicable.

Highway Bars, single, double & 750 \$12.95
Risers, 7/8", 1" \$12.95

**SEND \$1.00 FOR FORK TUBE
INSTALLATION MANUAL**

Expert Cycle

Manufacturer & Distributor
P. O. Box 1461, 18554 Parthenia St.
Reseda, Calif. 91335 (213) 886-5349

Send for Free Catalog.

Yamaha's 350cc twins are probably the most successful two-strokes in the world. A group of journalists in the

TEST: YAMAHA'S 350cc R5C A REAL "SLEEPER"

industry felt this machine was the best midi-street bike and voted it Motorcycle of the Year in 1970. An offshoot of the R5C is Yamaha's TR3, a limited production road racer.

Last March, AMA Professional Don Emde shattered the old school when he won the Daytona 200-mile National Championship road race. The four-strokes had finally been beaten at Daytona, and to add insult to injury, they were soundly thrashed by a two-stroke twin of less than one-half the allowable displacement. Emde was riding a Yamaha TR3 which is a 350cc machine.

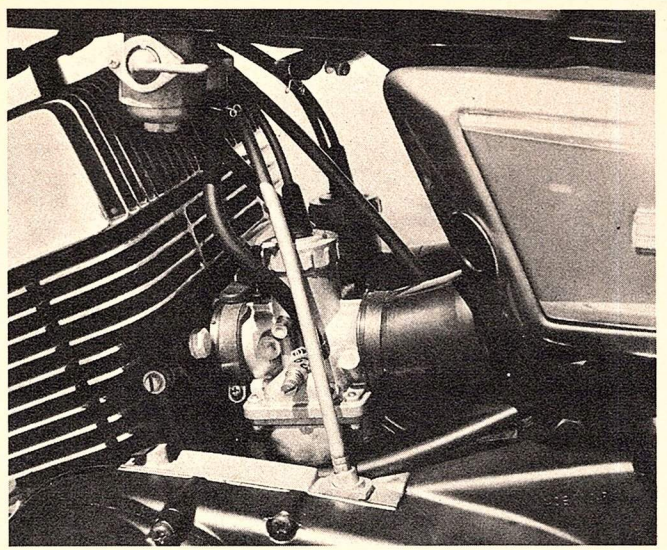
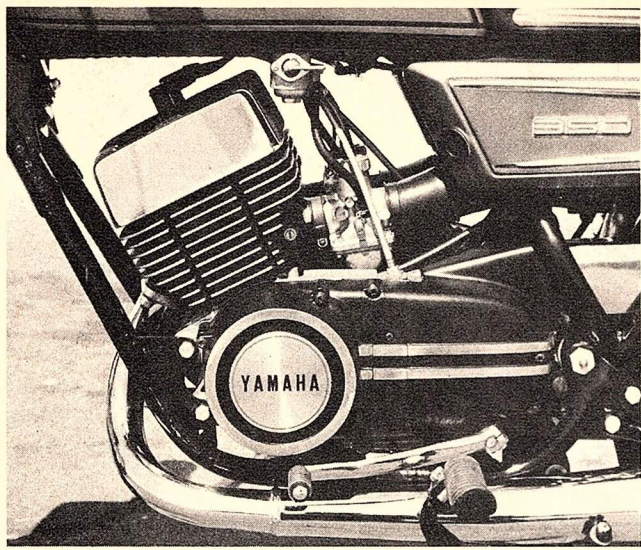
Comparing the TR3 and R5C is like making a comparison between American Motors' stock Matador and the one Mark Donohue drives, you just can't. Yet there are some interesting similarities that should be brought out.

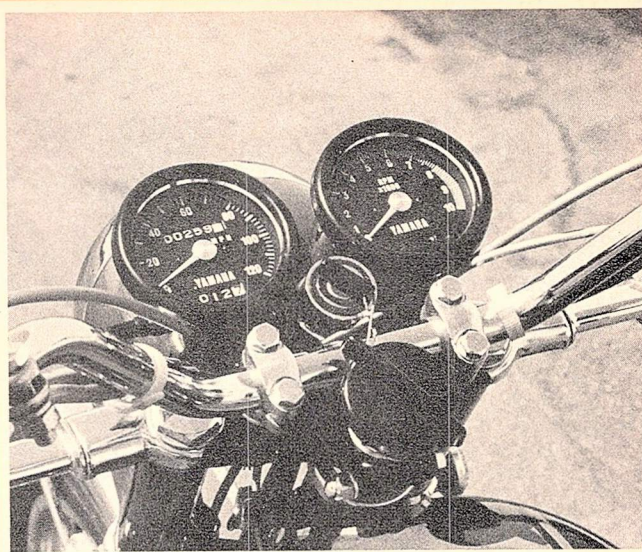
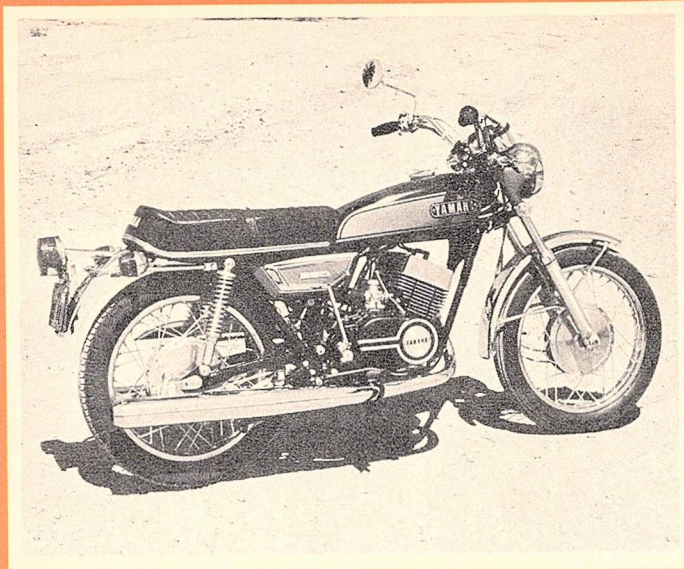
Both the R5C and TR3 are piston port twins. This means inlet timing is controlled by the skirt of the piston. There was a time when Yamaha, and many other two-strokes, used rotary disc valves attached to the ends of the crankshaft as a means to control their inlet timing. This was thought to be the best method to extract maximum horsepower, and in World Grand Prix road racing that's the name of the game. Technical advancements achieved through road racing has pretty much made this design obsolete for that type of competition. Spearheaded by Yamaha, most modern road racers are piston port-type engines.

R5C and TR3 engines are very close internally; they both use a 64mm bore and 54mm stroke. The R model gets 28 horsepower at 6,500 revolutions per minute while the TR3 has 30.2 at 9,000. Yamaha measures its compression ratio from the top of the exhaust port up, so their final figures are not as impressive as those found elsewhere in the industry. The R5C is 6.9:1 and the TR3 is 7.4:1. The road racing engine is set up just a hair looser with its piston tolerances and uses a 34mm Mikuni, whereas the R5C is fitted with 28s.

Both engines transmit their power from the crank to the gearbox through a set of gears. The road bike uses silent running helical gears and the







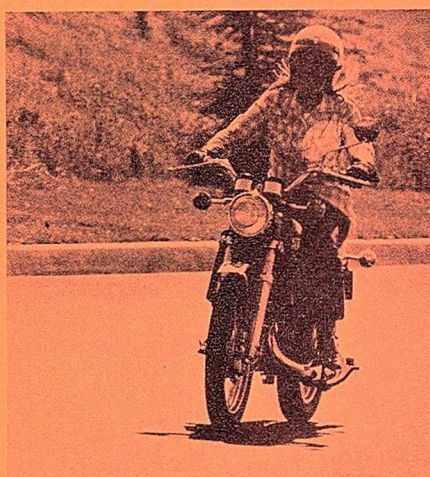
racer's are straight cut to save a fraction of a "horse." Although we feel the R5C has a close ratio 5-speed trans, the TR model has one that is really close. (Six-speed gearboxes are also available for both the 250cc TD3 and 350cc TR3.)

The road racer nets out at nearly 70 pounds less than the R5C, yet we still found its 319 (wet) pounds to produce a very light feel while on the road during our tests. The bike feels right, is eager to go, and corners at the whim of the rider. This is the third year of production of the R5 models, and it's hard to believe Yamaha has made so few changes other than color and the style of the exhaust pipe.

Unchanged, other than a minor piston ring configuration and piston ring groove, is the R5C engine. This modern power plant follows all the basic engineering practices that we have come to expect from motorcycles produced in these complex times. A forged steel connecting rod has needles at the little end and roller bearings at the big end. The crankshaft is a series of forged and machined steel pieces that ride in four sets of ball bearings and is pressed together under tremendous tonnage. This adds up to a free spinning, low friction engine capable of producing many ponies.

Yamaha's Autolube, or oil injection system, is one of the modern conveniences we take for granted. The oil sump itself is driven from a squib shaft that gets its power via a nylon gear off the crankshaft's pinion. (When first introduced on some models, the pump was driven from the gearbox. If a rider was to have this particular model with the engine running while at a standstill, clutch lever in with the bike in gear, the oil pump would not be in motion. This never amounted to any problem, but it was a disturbing fact to those who realized what was going on.) The pump varies its output according to the amount of throttle that

is being used. In fact, it has a cable hooked directly to the throttle linkage. Oil comes from a separate tank to the pump then piped to a set of fittings in the inlet manifold downstream of the carburetors. The 4% or 5% gas/oil ratio as required on the mix-it-yourself two-strokes is a maximum lubrication requirement. At half or quarter throttle the engine can live at probably 2%



and this is what the variable output oil pump does. It delivers the amount of oil the engine needs in comparison to the amount of throttle being used. The engine emits less smoke and runs cleaner, and that's better for everybody.

The clutch is a normal multi-disc affair using two unlike materials under the compression of 6 coil springs. Dog-type engagement is used within the 5-speed transmission utilizing three shifting forks programmed through a drum-type shifting cam. The gearbox is smooth operating and trouble free.

Our R5 is a kickstarter-type and, with the richening lever in the "on" position, it starts dead cold with 2 to 3 tries. The Yamaha takes a minute or more to warm up before it will run with the richening lever off. The engine revs freely in neutral, emits very little noise, and doesn't vibrate much either. A magnetic/mechanical tachometer needle

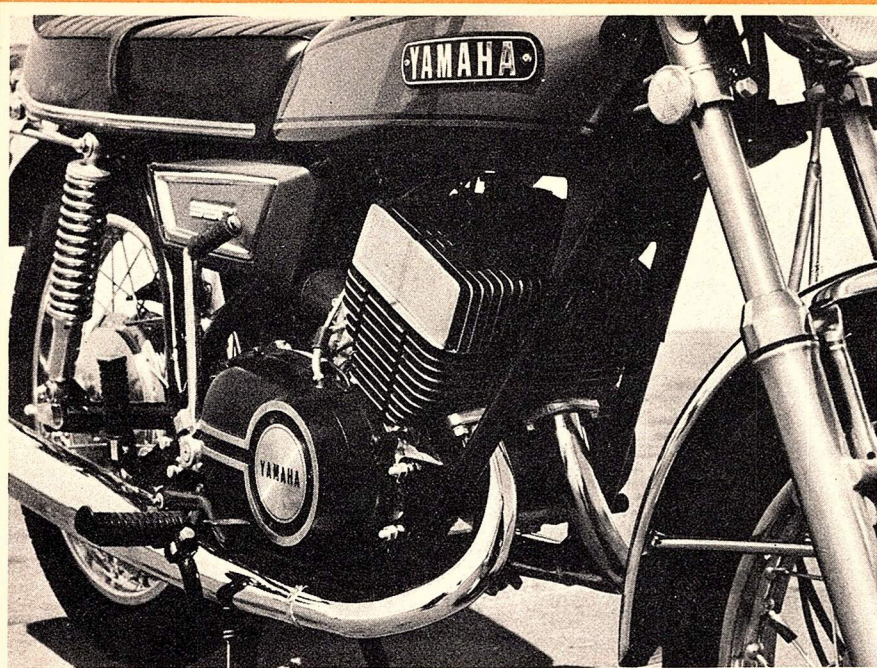
lazily points out revolutions per minute as the engine is blipped up and down the scale. A matching speedometer is mounted to the left of the tach and is thoughtfully equipped with a mileage trip odometer.

All lighting switches are controlled by the left hand. A small cast aluminum multi-switch housing fits between the clutch lever and handgrip. Lights, high/low beams, turning flashers and horn button are all within easy reach of your thumb.

A long, softly padded seat blends into the fuel tank and terminates well behind the rear shocks. Its height is a little over 31 inches from the ground, a distance that fits most riders. Footrests to seat to handlebar dimensions fit the midi-size to small-size riders, but a bit close coupled for one of our 6-foot-plus grasshopper-type testers. He kept sitting on the passenger's hand holding strap.

Controls work with a light feel and the R5C slips into first gear with just a touch of the left toe. You've got to rev it a bit to get enough torque from the engine to get under way. Once in motion the machine accelerates hard, and if you overdo it the front wheel carries across the intersection waving in both directions and not making contact with anything. An effortless click into second gear, a lot of throttle, and you've exceeded the residential speed limit. The R5C is quick!

We found this 350 to have a rather long jump from first to second gear with the rest closely spaced. The upper four gears are ideally suited for fast touring on those delightful twisty back roads, the kind where you rarely need fifth. A 350 is about as small as one would want to go if he contemplates bringing a passenger along. A second set of footrests are well placed for the second rider and their comments were quite favorable during our tests. With two aboard the R5C is not as agile or quick but still runs faster than



the motorcycle publishing industry. It is an excellent medium-size touring machine, one that can be whipped around town and taken on those long, high speed journeys. The R5C is a good all around street motorcycle, and after all, that's what they made it for. ●



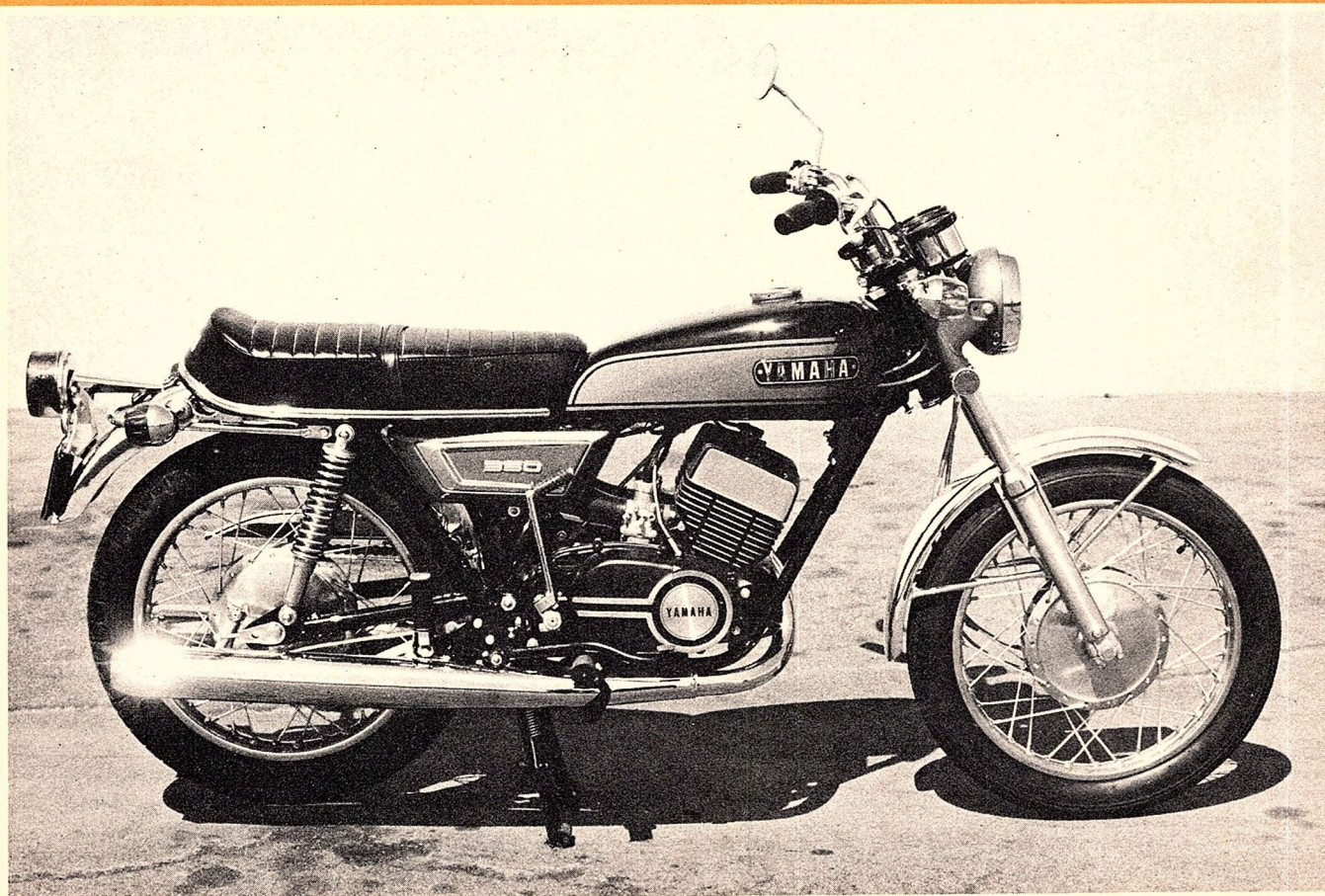
the flow of traffic on expressways, or in the city.

Muffling is very good on this twin with most of its running noises coming from the inlet tract or air filter housing. The Yamaha has a rather heavy inlet roar under hard acceleration.

Stopping the 350 is both effortless and fun. A large, self equalizing double leading shoe front brake will collapse the forks and all but smoke its tire under hard use. A rod operated single

leading shoe rear brake will skid the rear wheel at any speed we tried. She pulls down well in a straight line with both controls being sensitive enough to take the tires to the brink of skidding without actually locking them up. Through all this we got the finned hubs warm, yet the brake lining refused to fade.

In conclusion we found Yamaha's 350cc R5C to be worthy of the title bestowed upon it by other members of



MAKE YAMAHA

MODEL 350cc R5C

PRICE AS TESTED \$825.00 F.O.B.

MAXIMUM SPEED AS GEARED 103 mph

WEIGHT 319 lbs. WET

ENGINE

Engine Type 2-STROKE, TWIN
 Bore 64mm
 Stroke 54mm
 Displacement 347cc
 Compression Ratio 6.9:1
 B.H.P. at R.P.M. 36 AT 7,000
 Carburetor (2) 28mm MIKUNI
 Ignition BATTERY AND COIL
 Starting System FOLDING KICK
 Lubricating System OIL INJECTION

FUEL AND OIL

Oil Capacity 2.1 QUARTS
 Oil Recommended YAMALUBE
 Fuel Capacity 3.2 GALLONS
 Fuel Recommended PREMIUM
 Approximate mpg 50

FILTERING SYSTEMS

Air MICRONITE PAPER
 Oil SCREEN
 Fuel SCREEN

FRAME

Frame Type DOUBLE DOWN TUBE, CRADLE
 Weight Distribution FRONT: 45%, REAR: 55%
 Wheelbase 52.5 TO 53.5 INCHES
 Ground Clearance 7 INCHES
 Peg Height 12 INCHES
 Seat Height 31.5 INCHES
 Handlebar Width 29 INCHES

SUSPENSION-TYPE

Front TELESCOPIC
 Rear SWING ARM

SUSPENSION-TRAVEL

Front 4.75 INCHES
 Rear 2.75 INCHES

DRIVE TRAIN

Clutch Type MULTI-DISC, WET
 Primary Drive GEAR (2.869:1)
 Countershaft Sprocket 15 TEETH
 Final Sprocket 40 TEETH
 Final Drive ROLLER CHAIN (2.666:1)
 Gear Ratios Internal Overall
 1st 2.562:1 19.608:1
 2nd 1.590:1 12.173:1
 3rd 1.192:1 9.123:1
 4th 0.965:1 7.388:1
 5th 0.806:1 6.171:1

TIRES AND WHEELS

Front 3.00x18 RIBBED
 Rear 3.50x18 DUNLOP K87

IMPRESSIONS	Poor	Good	Excellent
Throttle Response		●	
Acceleration			●
Power Band		●	
Starting		●	
Engine Noise		●	
Muffling		●	
Vibration		●	
Handling		●	
Choice of Tires		●	
Suspension		●	
Rider Comfort		●	
Transmission			●
Instrumentation			●
Lighting			●
Toolkit		●	
Paint and Chrome		●	
Styling			●
Mileage		●	
Braking			●

Distributor East: ... Heller Place, Interstate Ind. Park
 Bellmawr, N.J. 08030
 West: ... 6600 Orangethorpe Ave.
 Buena Park, Ca. 90620

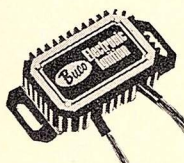
NEW



IS EVERYTHING FOR THE MOTORCYCLIST

5 GREAT HELMET LINES

All-new designs including our "Racing GT" full coverage helmet, the colorful "GT", the "International" with its "Electra-Flake" look, our "Enduro" high gloss helmets and the unique "Fashion" Line.

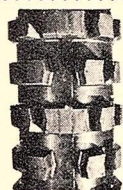


ELECTRONIC IGNITION

Improves gas mileage, increases power and acceleration, reduces point wear, starts your engine instantly in any weather.

BUCO/HAYDEN OIL COOLER

A "must" for the touring motorcyclist. Cools oil temperature down dramatically, assuring longer overall engine life.



GOODYEAR TIRES

The fantastic new Eagle MX with deep, sturdy "Moto-Grip" lugs plus 5 other popular tread designs in a wide variety of sizes for every type of riding.



DIAMOND CHAIN

Chain as hard as its name. Available in pre-cut packaged chain lengths to fit most motorcycles. Chain parts kits also available.

PLUS MANY OTHER
POPULAR MOTORCYCLE PRODUCTS.
SEE THEM AT YOUR LOCAL BUCO DEALER.

Say
it
right...



... "U"
like
in you!

NATIONAL SALES SERVICE

Buco Products,
7652 Burnet Ave., Van Nuys, Calif. 91405
Phone: (213) 782-5031

Eastern Sales Service: Buco Products,
955 Lake Road, Medina, Ohio 44256
Phone: (216) 722-1563

Nuts & Bolts

Dear Sir:

I am planning a trip from Flagstaff, Arizona to Albuquerque, New Mexico and back. I was wondering if my Honda SL125 could make such a trip?

I would also like to know if there is something I can do to increase the horsepower on my bike. I heard that if I install an expansion chamber on my four-stroke it would mess up the engine. Is this true? If you would please give me some suggestions on how to increase the power on my Honda, any information would be greatly appreciated.

Alfred Gonzales
Flagstaff, Arizona

Expansion chambers are for two-strokes. If you leave the little Honda alone it will make that trip, hop it up and you'll lose reliability. Believe me, sitting on the side of a highway with a broken motorcycle is no fun.

Dear Mr. Ekins:

I have a big problem that you might be able to help me on. I have purchased a Bultaco Alpina and cannot get our Bultaco dealer to get the lights wired correctly. Everytime you rev the engine you blow a few bulbs because they don't give you instructions with the lights, and they have never installed lights on the rest of the Alpinas they sold. Could you explain the color coding and wire color to the proper place for the taillight, junction box and transistor network?

Was that you that won the 1971 Jackass Enduro? Which Bul did you use, and was it modified?

Joseph R. Borelli
Denver, Colorado

Your Bultaco has the pointed Femsatronic (points), it's a very simple system. Four wires from the Femsatronic connect into a junction box under the fuel tank. The yellow wire is power to your lights from the Femsatronic.

Another yellow connects to this yellow at the junction box and goes to the light switch mounted on the bars. You may interrupt this wire and connect a self-grounding Zenor diode (#21306-C) to regulate the voltage input into the light switch. At the light switch the blue and white wires are high and low beam, it doesn't matter which. The red wire is kill button and connects to another red wire in the junction box. The black wire also goes to the junction box where it connects to the taillight. The green wire from the Femsatronic must be grounded or it can have a resistance ground and power the stoplight. I used an Alpina just like yours to win the Jackass Enduro.

Dear Sir:

I own a 1970 Honda CB-350 motorcycle (7,000 miles). I was experiencing intermittent difficulty with shifting (down) when my bike was warmed up, particularly immediately after coming off a super highway. My attempts to adjust the clutch became a series of failures in spite of my closely following the written and illustrated directions in the shop manual.

My question is the following: With the clutch properly adjusted and fully engaged (clutch lever in) the rear wheel ought to remain still and not rotate. If I hold the rear wheel stopped with the rear brake, then release the brake, the rear wheel will begin to turn. No matter of fiddling with the adjustment(s) seems to cure this problem. The chief honcho mechanic of my local Honda dealer thinks I'm wrong in my basic assumption. I question his competence! Who is right? If the bike is in neutral, the rear wheel won't spontaneously rotate—so why when the clutch is engaged?

If you can answer my question I would be grateful. I suspect the inner mechanism of the clutch is going to require some attention. I'm assuming that when I have the clutch properly adjusted and fully engaged no power will be transmitted to the drive chain, thus the fact is the acid test of a properly adjusted clutch. Test

(Please turn page)

YANKEE



Z

... it lives!



500 cc simultaneous firing twin cylinder 2 stroke engine. 6 speed 4.2:1 wide ratio transmission. Main frame TIG welded from 4130 chrome moly aircraft tubing. Aluminum 7075-T6 fork yokes forged by Smith & Wesson to pistol frame specifications. Only production dirt bike with double acting hydraulic rear disc brake. 4" travel rear shocks with unique hydraulic stop. New Full Bore wide oval profile tires 315-21 front and 420-18 rear.

YANKEE



P.O. Box 36 • Schenectady, New York 12301
24030 S. Frampton Ave. Harbor City, Calif. 90710

• A BANGOR PONTA COMPANY



WE BELONG

Nuts & Bolts continued

is done on center stand, rear wheel elevated.

Thank you for your consideration.

Anthony E. Otis
Burlington, Vermont

Unfortunately you're wrong, Tony. When you squeeze the clutch lever the clutch plates separate from each other but only by a short distance. You have probably five drive plates and six driven plates. The total movement of the clutch actuating rod within

the mainshaft is about 125 thousandths of an inch. Divide that by the 10 contact surfaces of the five drive plates and you have a little over 10 thousandths of an inch of clearance. Add to this plate run-out do to the springs not all being equal. (And they never are, it's an impossibility on a production basis), plus a dash of oil that is splashing around in the primary case lubricating among other things the clutch plates, and you will have clutch drag. Yes, enough to spin the rear wheel when in gear and the clutch lever fully depressed. This is why, when stopped for any length of

time, like at a signal, you should slip your bike into neutral.

Dear Sirs:

In your February issue you have a test of the Penton 125 Six Days. On page 51 in your specifications you state that it has the Motoplat C.D.I. ignition system. A few weeks ago I purchased a Penton 125 and this is a fine bike, but it does not have this fine ignition system. I was just wondering if your test bike was fitted with this as an option or was it standard?

Thank you very much for your time and trouble. Keep up the very good magazine.

Mike Hartley
Warner Robins, Ga.

Our test bike was a very rare six-speed unit sent over for product evaluation by the Penton people and very definitely will be available.

Dear Mr. Ekins:

I appreciated your evaluation of the Suzuki TS250R. It was stated in the manuscript that to ride the Greenhorn Enduro you installed a countershaft sprocket with one less tooth, a 13. The machine stock sprocket is a 15-tooth sprocket. I wonder if you used a 14 or 13-tooth sprocket? My machine is equipped with a 3.00x21 front wheel. I have dropped to a 13-tooth counter sprocket. I am quite pleased with this set up. In Florida the water we have to run enduros in is sometimes a little deep. Do you feel it would be alright to plug the holes in the bottom of the air cleaner and then open new holes in the top of the air canister? Can you suggest another better method?

I enjoy your magazine, especially the articles about the enduro riding, and evaluation and mechanical maintenance of dirt machines.

Yours truly,
Dale L. Taylor, M.D.
Lakeland, Florida

Thank you for your inquiring letter . . . I've been caught in another boo-boo! We did use a 14-tooth countershaft sprocket on the TS250R Suzuki. As for the air cleaner, the air inlet tubes in the
(Text continued on page 75)



HI! I'M MOLLY BLUE



LET'S HAVE A ... LOVE AFFAIR

Molly Blue really sticks by your chain. Its deep penetrating blue foam provides the very best lubrication and protection to stop chain stretch and seizing. Let your local dealer play cupid — ask for Molly Blue — You'll love it!

WATCH FOR MISS MOLLY BLUE AT MOTORCYCLE RACES EVERYWHERE.

MFG. BY:
HRL-LUBRICANTS, INC.
7340 Florence Ave. • Downey, Cal. 90240

DISTRIBUTED BY:
TRIPLE A ACCESSORIES, INC.
340 East Alondra • Gardena, Calif. 90247

TEST: THE BENELLI ENDURO

It seems the Italians have their own special way of making motorcycles. They all seem to be short, very rigid, and about a decade behind the rest of the industry. In some cases Italian machines have pioneered certain aspects of motorcycling, Ceriani-styled forks and handlebars with crosspieces are a good example.

Enduro bikes are an offshoot of machinery built for International Six Days Trial type competition. They are dual-purpose machines and Italy has had her share of wins in these International events with their own products. Road racing is another story and Italy's dominance in the World Classics during the last three decades speak for itself.

The Benelli 175 Enduro is a curious motorcycle. It is short, 50 inches axle to axle. Tall, 32-inch seat height. And has smallish cross section tires for the intended use of this bike; 2.75 front and 3.00 rear by 19-inch diameter tires are very much out of place compared

to what you see on the market these days.

Yet, they build a functional piece of machinery, one that will do the job. The double steel tube cradle-type frame assembly is very rigid, partially due to its shortness and partially due to its all welded construction. Ground

clearance at its lowest point is 9¼ inches, that's where the side stand juts out. It has a closer to an 11-inch clearance factor to the skid plate which protects the bottom of the engine. Coupled to this short wheelbase, that's more than enough for bumping over all but the largest fallen timbers.

The Benelli is fitted with a pair of fenders that don't do much other than keeping a vertical spray off your goggles if you venture into wet places. The front one is high mounted and very small to allow maximum cooling to the cylinder. The rear fender is quite flat also, but serves its purpose as a place to fasten a taillight. Both are nicely finished with rolled edges and polished chromium plating.

The 2¼-gallon fuel tank is another classic Italian innovation. This one has a tool compartment. Four loops are also welded to the top of the fuel tank so you can fasten something, Lord knows what. A single, hard to

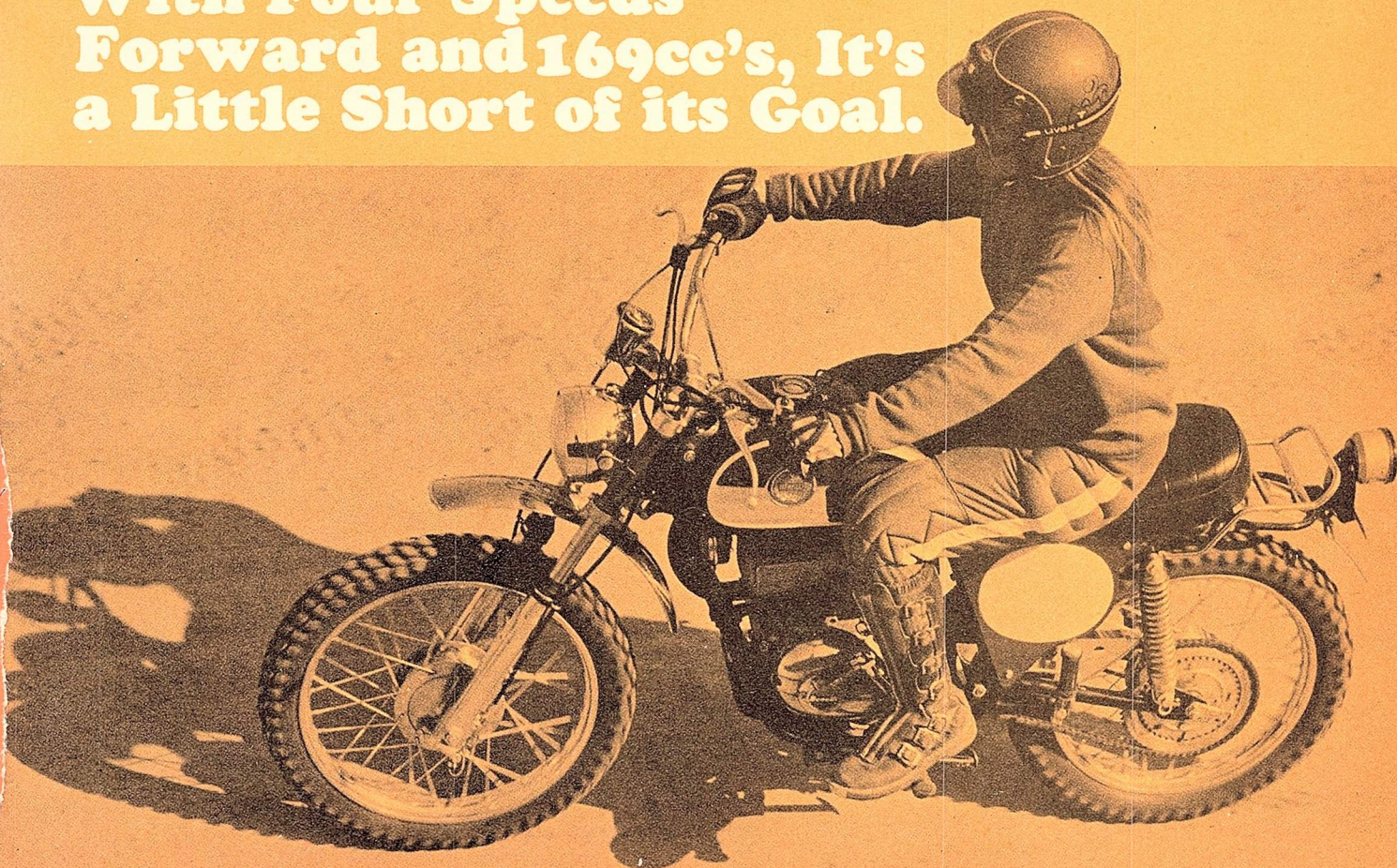
find shut-off valve feeds the carburetor, and there is no crossover tube to connect the two panniers of the tank. I for one like this because it makes the chore of removing the tank a not so messy job. Actually, the fuel tank is practically level at the rear and a crossover tube isn't necessary.

A 6-volt battery lives under the seat and is hidden on both sides by a pair of number plates. This racy innovation does serve a purpose in hiding a bunch of electrics. The seat itself is one of the nicer features of the bike. Unlike early Italian breadboards this one is soft and well proportioned.

The Benelli's seating position is also fairly nice. The handlebars are not overly wide and the footrests are located just ahead of the nose of the seat where they should be. Their proximity to the brake pedal and shift lever is also very good. Passenger footrests come on the 175 Enduro, and it will carry two. Another added feature is a small luggage rack behind the seat, about right for carrying one six-pack.

The bike has a front wheel drive speedo and a high mounted exhaust pipe, but that's about as far as it goes towards being a serious enduro machine. The speedo does not have a

With Four Speeds Forward and 169cc's, It's a Little Short of its Goal.



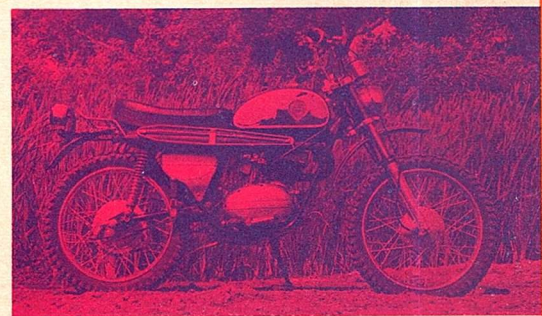


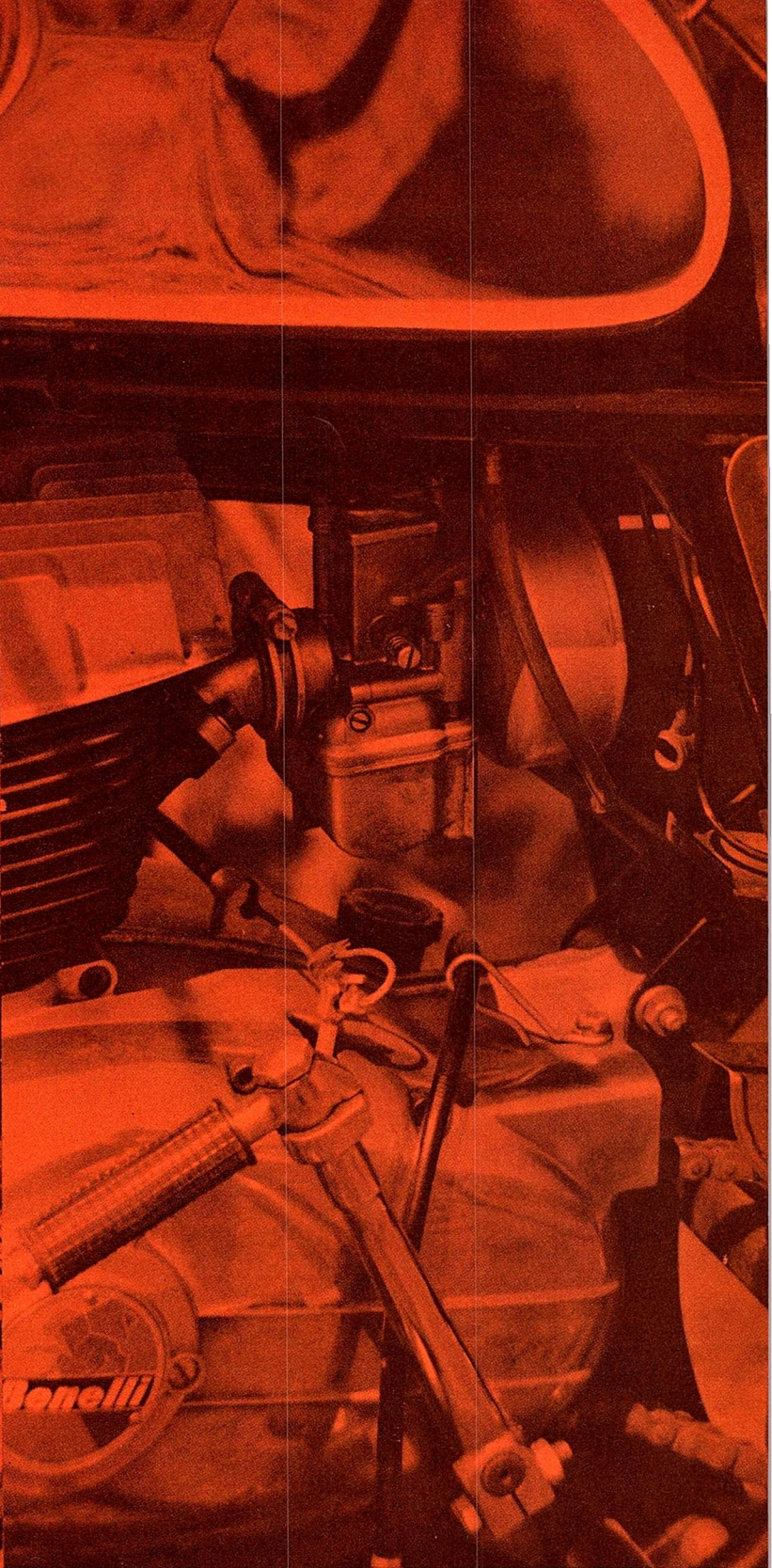
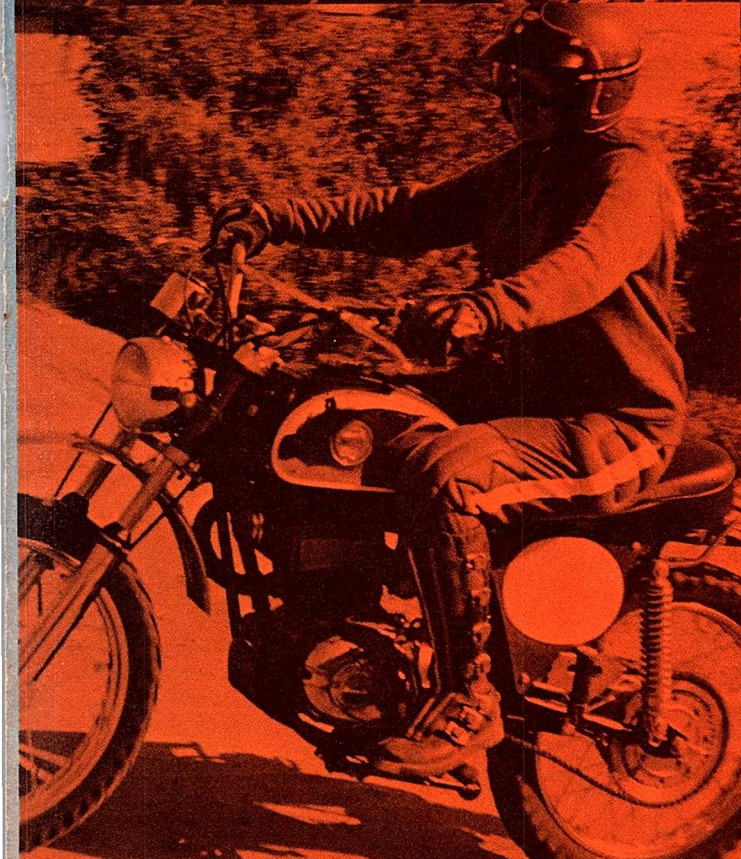
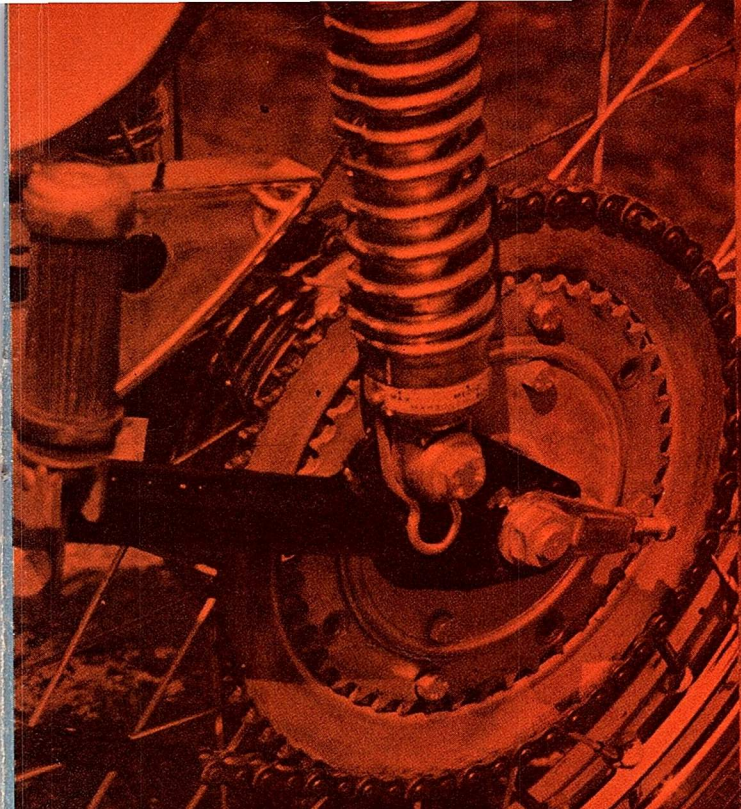
resetable odometer and the upswept exhaust pipe simply is in the way. It has some shielding on it but even that got hot enough for our test staff to feel during short rides.

The 40-tooth rear sprocket is fitted with a 60-tooth overlay to gear it down. With trail gearing the most we could wind the Benelli out to was 50 mph. This machine has a strong and predictable power curve, and in conjunction with a wide ratio gearbox,

the bike propels itself out in the boonies fairly well. Super speed shifts from first to second just gets a little wheelie but the bike does go forward.

The Benelli seems to be at its best in the choppy stuff where a combination of the long travel suspension, short wheelbase, and smooth power flow makes the bike behave nicely. The forks could use a little more cross up. We took it on some tight mountain trails and found it difficult in





the turns although it didn't have any problems from lack of power .

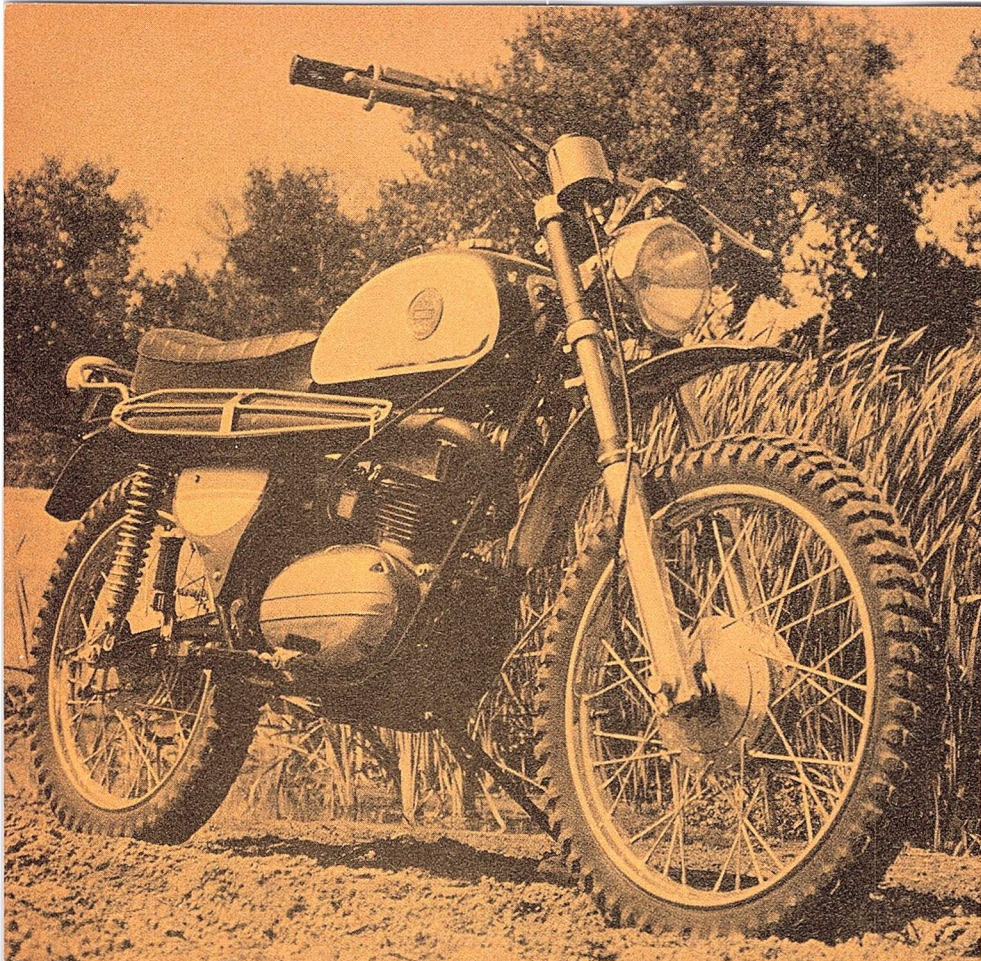
The Benelli engine is a simple piston controlled 2-stroke. It's fitted with a 22mm Dellorto center float carburetor that features a square slide. These carburetors are unique in themselves because the downstream side of the slide is forced against the carburetor body by the throttle return spring and makes an air tight seal. These center float units are designed to operate

in positions up to 45 degrees from level. Air filtration is handled through a wire mesh-type element that relies on carburetor spit back to keep it wet. Although crude, this system has proven very effective in all but the most severe dust conditions.

It uses a two ring aluminum piston with windows at the transfer ports. There is also a slight cut-away on the inlet side of the piston skirt to increase inlet duration. The little end of the

connecting rod has a bushing and the big end is fitted with rollers. The crankshaft is carried in ball bearings at both ends. Drive to the clutch is by gear with a multi-plate clutch assembly transmitting the power to the transmission. It has a four-speed sliding gear transmission that is indexed with shifting forks. Very simple, very functional.

Cold, the machine starts up on first kick using the richening device fitted



to the Del Lorto. It takes a little while for the engine to warm up, probably due to the slow heating characteristics of its cast iron cylinder.

A flywheel magneto generates the Benelli's electrical supply. The unit uses a battery for horn and stoplight but will work without. The magneto has a

primary coil to feed a secondary coil mounted on the frame. The generator part of the flywheel magneto keeps the battery charged and handles the rest of the lighting chores. And the lights aren't half bad either, you can see quite a ways with them on a dark night.

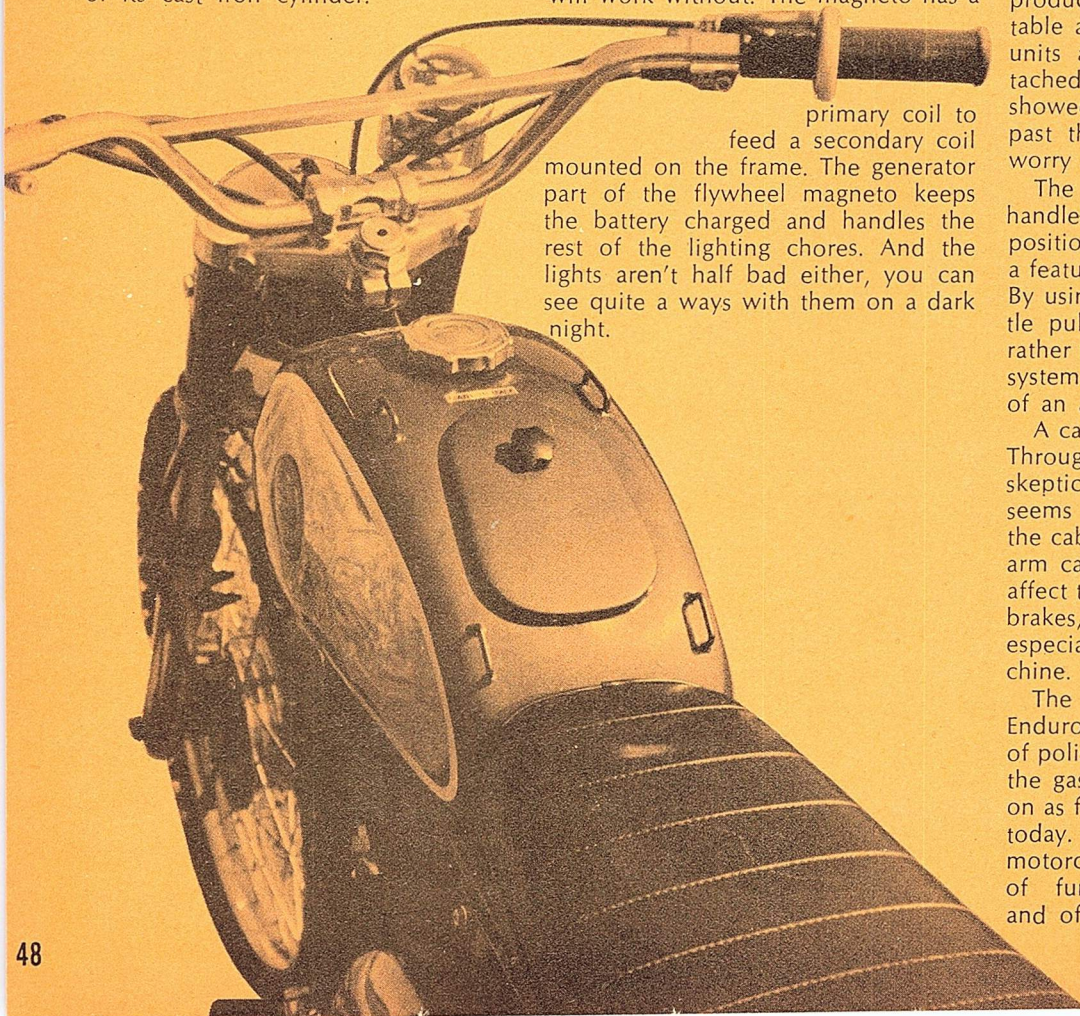


Marzocchi makes the forks and rear shocks fitted to this Benelli. Both units have good dampening control and produce a smooth ride that is predictable and controllable. The rear shock units are adjustable with a lever attached to the bottom. The front forks showed a slight amount of oil seepage past the seals but this is nothing to worry about.

The alloy control levers on the handlebars are very nice as is their positioning. The Marzocchi throttle is a feature that is destined to be copied. By using a cam arrangement the throttle pulls the cable in a straight line rather than around a drum. This simple system will more than double the life of an average throttle cable.

A cable also operates the rear brake. Through experience our test staff is skeptical of cable operated brakes. It seems too much energy is lost within the cables. On the plus side, the swing arm can move up and down and not affect the braking feel. We found these brakes, both front and rear, to be especially good for an off-road machine.

The overall finish of the Benelli Enduro is nice with generous amounts of polished chrome. The white stripe on the gas tank is real paint, not a stick-on as found on many motorcycles sold today. The little Benelli is a serious motorcycle, one you can have a lot of fun with both on the road and off.



MAKE BENELLI

MODEL 175cc ENDURO

PRICE AS TESTED \$699.00

MAXIMUM SPEED AS GEARED 50 mph

WEIGHT 223 lbs. WET: Tank 25% Full

ENGINE

Engine Type 2-STROKE
 Bore 60mm
 Stroke 60mm
 Displacement 169.56cc
 Compression Ratio 8:1
 B.H.P. at R.P.M. 16.4 AT 6,200
 Carburetor 22mm DELLORTO CONCENTRIC
 Ignition FLYWHEEL MAGNETO
 Starting System FOLDING KICK
 Lubricating System OIL MIST

FUEL AND OIL

Oil Capacity IN FUEL
 Oil Recommended 2-STROKE
 Fuel Capacity 2.5 GALLONS
 Fuel Recommended REGULAR
 Approximate mpg 60

FILTERING SYSTEMS

Air WIRE MESH
 Oil SCREEN
 Fuel SCREEN

FRAME

Frame Type DOUBLE LOOP
 Weight Distribution ... FRONT: 47%, REAR: 53%
 Wheelbase 50 to 51 INCHES
 Ground Clearance 9.25 INCHES
 Peg Height 12.5 INCHES
 Seat Height 32 INCHES
 Handlebar Width 29.5 INCHES

SUSPENSION-TYPE

Front TELESCOPIC
 Rear SWING ARM

SUSPENSION-TRAVEL

Front MARZOCCHI 5 INCHES
 Rear MARZOCCHI 3 INCHES

DRIVE TRAIN

Clutch Type MULTI-DISC, WET
 Primary Drive GEAR (2.727)
 Countershaft Sprocket 14 TEETH
 Final Sprocket 60 TEETH
 Final Drive SINGLE ROW CHAIN (4.285)
 Gear Ratios Internal Overall
 1st 2.61:1 30.498:1
 2nd 1.60:1 18.696:1
 3rd 1.24:1 14.391:1
 4th 0.911:1 10.746:1

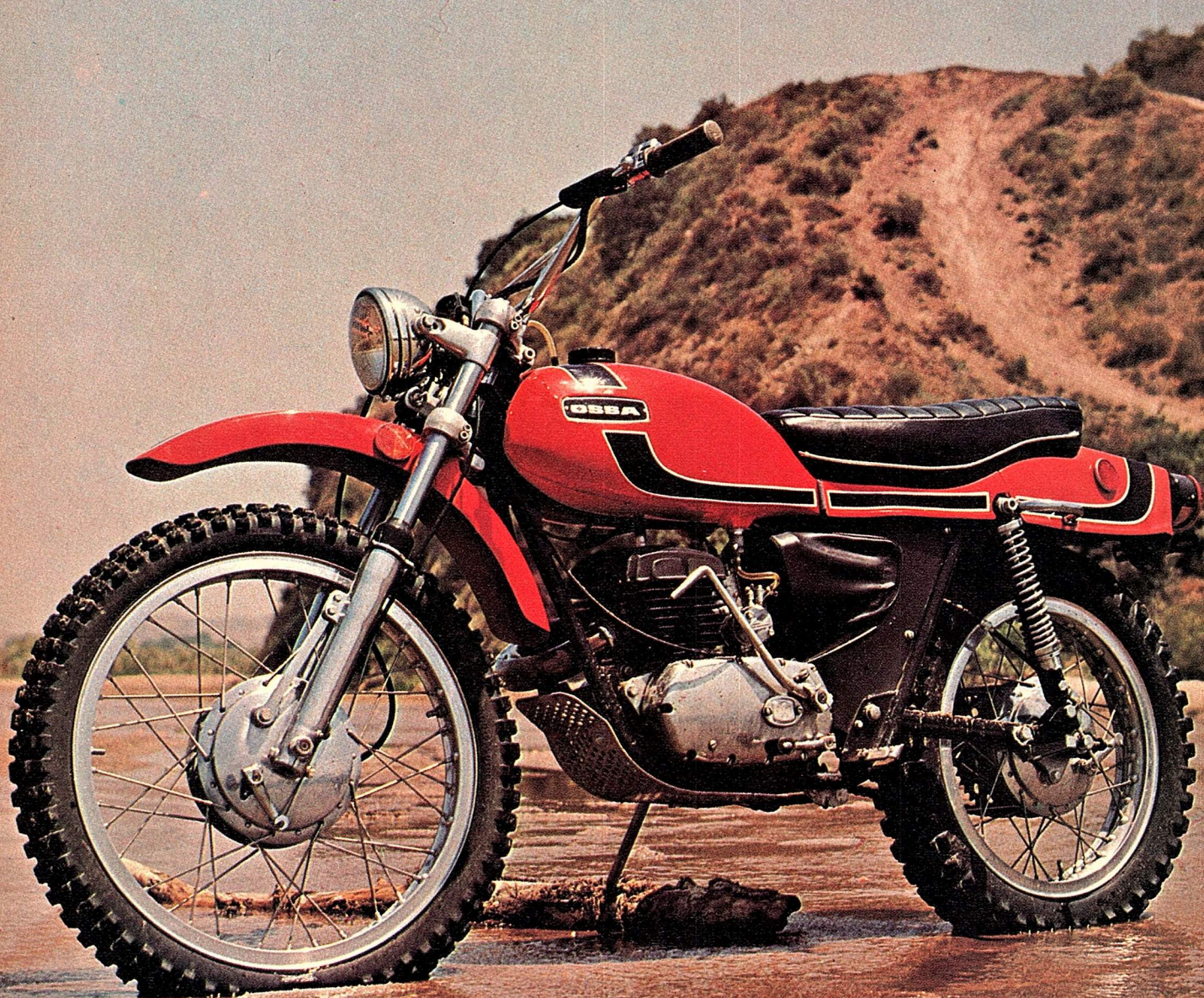
TIRES AND WHEELS

Front 2.75x19 PIRELLI KNOBBY
 Rear 3.00x19 PIRELLI KNOBBY

IMPRESSIONS

	Poor	Good	Excellent
Throttle Response		●	
Acceleration		●	
Power Band		●	
Starting		●	
Engine Noise		●	
Muffling		81dB(a)	
Vibration		●	
Handling		●	
Choice of Tires		●	
Suspension		●	
Rider Comfort		●	
Transmission		●	
Instrumentation	●		
Lighting		●	
Toolkit		●	
Paint and Chrome		●	
Styling		●	
Mileage			●
Braking			●

Distributor COSMOPOLITAN MOTORS
 Hatboro, Pennsylvania 19040



LAST MONTH A PLONKER, THIS MONTH A PIONEER--THEY KEEP GETTIN' BETTER.

Ossa's Pioneer is the backbone to this fine line of Spanish manufactured motorcycles. It's an enduro machine, one that is as much at home on the highway as it is out in the boonies. Spurred by the enormous popularity of on- and off-road riding, enduro models are more popular than ever. In fact, factories like Ossa cannot keep pace with the demand.

The Pioneer is in its fourth year of production and the machine has improved with each new batch. Most obvious on these later models are the Betor forks, which were added in the middle of 1970. Dampening within the forks have been altered, and sturdy, lightweight alloy forged triple clamps, added. They use two Allen bolts at each clamping point for a firm grip on the

stanchion tubes which reduces twist to a minimum. For 1971 the Pioneers came with five-speed gearboxes and a few minor changes. In 1972 the Betor

TEST: OSSA'S PIONEER

shocks in the rear are nearly straight up and given an inch more travel.

The old method of adjusting the rear chain has been abandoned for a washer

welded to a stud in tension method so common among motorcycles these days. Aluminum alloy Spanish Amal levers like those found on the Mick Andrews Plonker are also new.

Ossa was among the first to utilize fuel tank/seat base/rear fender units made from fiberglass. This slick idea has since spread among the industry although it is still the characteristic Ossa look. Earlier models had some problems with the fuel tank side panels being a bit soft, sometimes you could knock a hole in it with your knee as a result of a crash or something. Apparently they have come up with a harder resin or maybe a few more layers of glass because the tank feels a heck of a lot sturdier now.

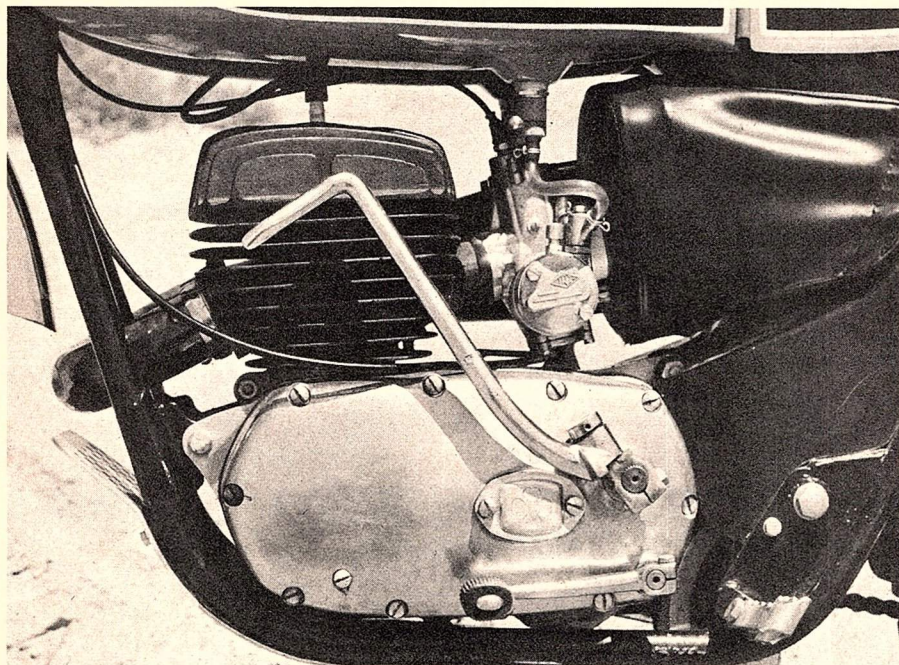
Appearance of the Pioneer is that of



an all business dual-purpose bike. Headlight and taillight are big and legal (there's a battery under the seat), and it has a stoplight and electric horn. The orange and black finish on the glasswork is attractive as well as distinctive. One thing about an Ossa, you

conjunction with the Timken bearings in the steering head and those solid triple clamps holding the forks, the whole unit doesn't seem to twist and flex.

A long, overstuffed saddle is the last feature added to the Pioneer. It's



can't mistake them for something else.

A double cradle tubular frame follows the engine cases closely and catches the swing arm fulcrum at its outermost points. The chassis, being a welded up unit, is quite rigid and in

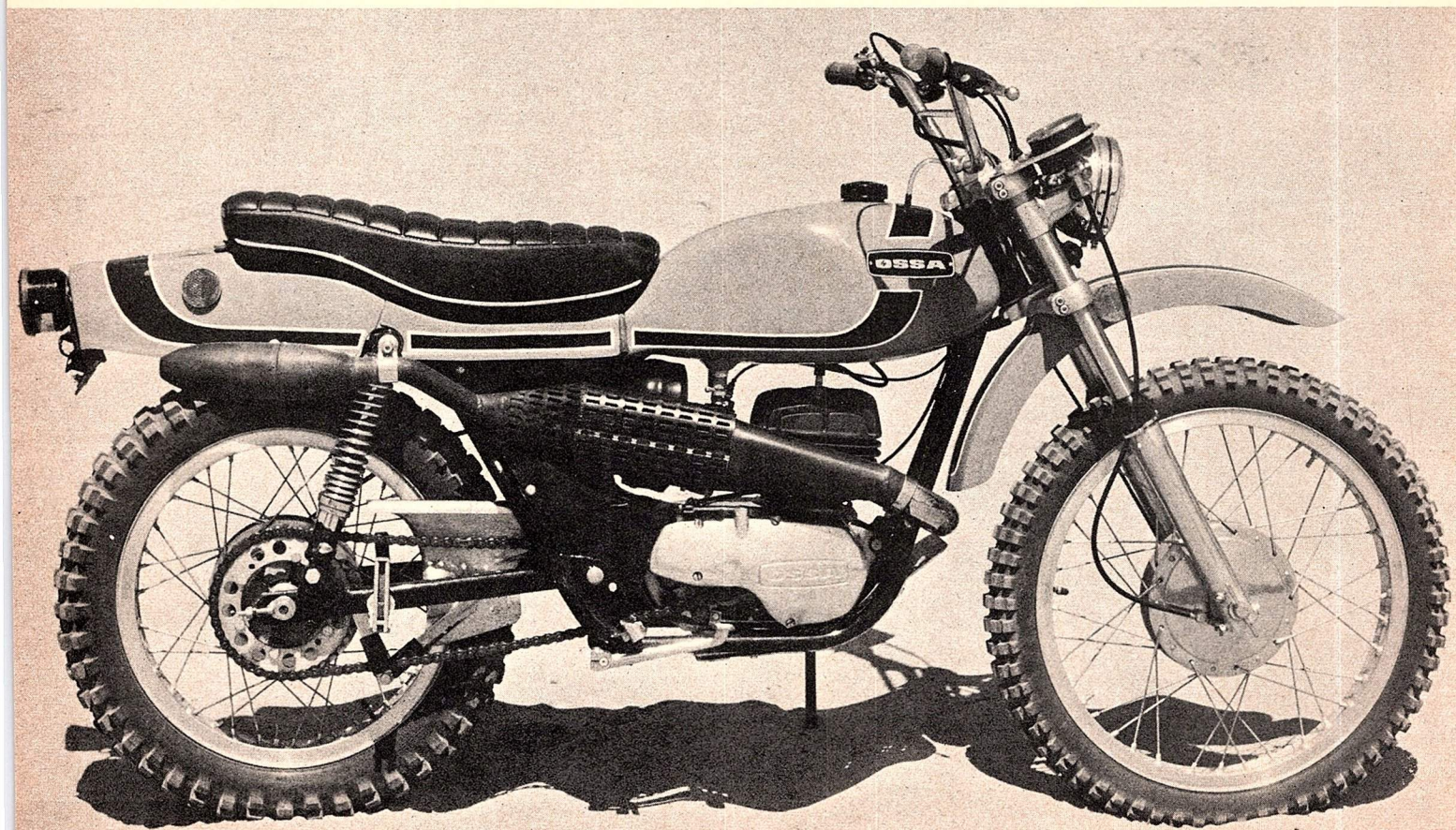
more than comfortable and has plenty of room to carry another person. (Passenger footrests are also provided on this model.) You sit on the seat and reach down just a bit for the handlebars. Footrests are in a good comfort-

able position, you should be able to take long rides without your legs tying in knots.

Both brake and shift levers are in their proper places. The kickstarter swings off a stub that's clamped to the kickstarting shaft's spline. The kickstarter swings way out to miss the footrest and is hampered by an extra big reduction in gearing. It seems a half turn of the starting crank spins the engine over four times. Once you get the inertia going it starts up quickly. It just takes a lot of initial load on the kick-start lever to put things into motion. This is probably the reason we see so many compression releases on Ossas. It does simplify the starting chore.

The engine is quite simple and follows everyday straight forward 2-cycle designs. Piston controlled inlet breathing through a hole in the alloy cylinder and cast iron cylinder liner is common. Both inlet and exhaust holes are extra large, and they've done away with the bridges across the center of these ports which were used to keep the rings from flying out.

They managed to do this by using malleable steel piston rings one millimeter in thickness. The wear side, or outer edge, is hard chrome plated and they seem to last the life of the cylinder bore. The piston sets up at a very close 1.5-thousandths clearance in the sleeve yet the bike doesn't suffer from seizures. They get around this by using a high silicone content piston that ex-



pands at a much slower rate than the cylinder bore.

A forged steel connecting rod has its usual needle bearings for the pin to ride in and rollers at the big end. Because of oil mist-type lubrication this seems to be the pattern 2-stroke manufac-

the early Triumph twins and AJS singles used.

Power to the clutch is by a duplex chain and transmitted to the transmission mainshaft via multi-disc fiber and steel clutch. Five coil springs in compression apply the necessary pressure. The five-speed transmission engages itself by three shifting forks programmed from the slots ground in the selector cylinder. The gears engage with dogs, shifting problems with this type of transmission are practically unheard-of.

On the other side of the crankshaft is the C.D.I. Motoplat ignition. This new one will not fire if the engine turns over backwards, something that has happened many times. The ignition begins at 1.5-millimeter advance when running at low rpm's and increases to 3 millimeters as the torque comes in. This, in conjunction with the smooth operating double needle IRZ carburetor, produces a very clean power band. They have done away with the secondary pilot circuit on these carburetors in an effort to simplify things. With one needle for the first half of throttle opening and another for the second half, a little simplification here and there might help.

If you get the bike over on its right side though it will do the same thing any other side mount float-type would do, flood. And we all know the problems of starting a 2-stroke that has filled its cases with fuel.

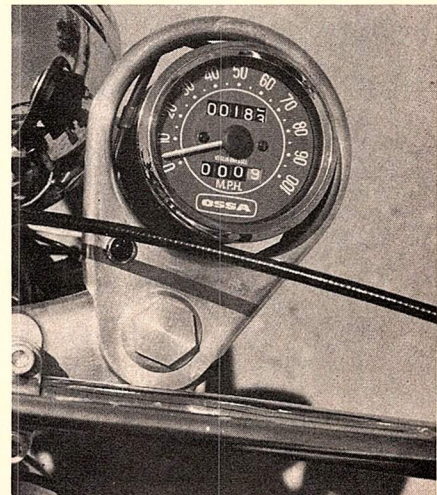
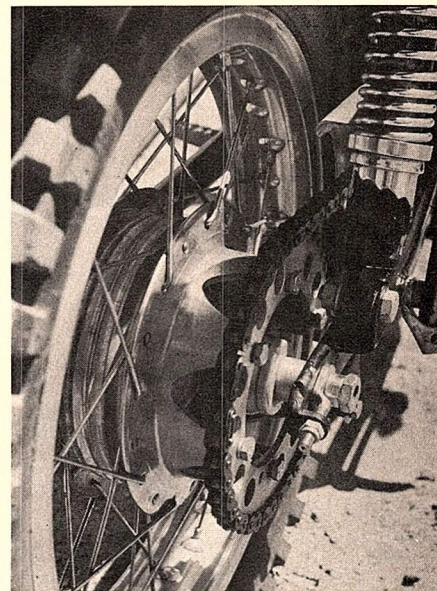
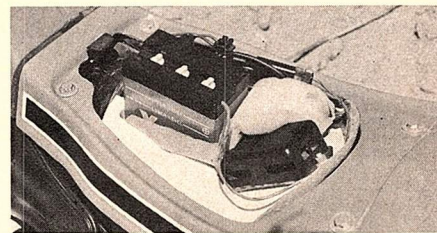
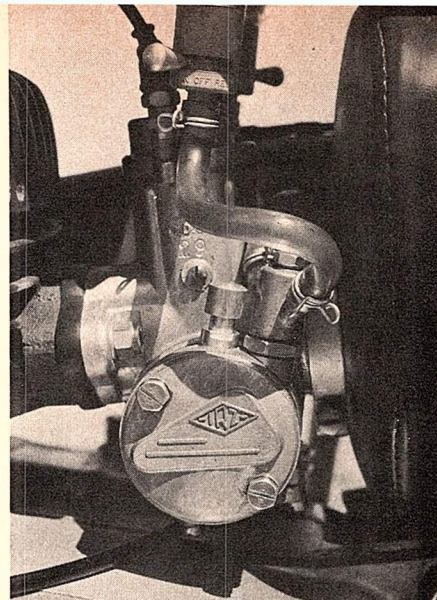
Performance is not of the neck snapping variety, but it does get there. The selection of gears within the gearbox is well suited to a broad torque curve produced by the engine, and you always seem to be in the proper gear at the proper time. On a hard surfaced dirt road the Pioneer has enough suds to spin its rear wheel in all five gears, and this makes fireroading fun. The bike slides super well and its combination of suspension and geometry removes all doubt as to where you can put it. For a dirt bike the braking is exceptional even though both are cable operated. It's these healthy brakes and responsive steering that gives you so much confidence on those high speed dirt roads.

The bike is just as much at home on mountain trails or plowing up a dry river bottom. It doesn't begin to shake its head until you get to the limits of suspension travel, and that's hauling! On the trails the bike tracks very well, it just has one shortcoming; the forks don't turn far enough to negotiate those tight mountain hairpin turns. Low is far enough down to pull you through and fifth will take you beyond most speed limits. The Ossa Pioneer is a good all-around enduro machine, one of those rare birds that can practically do it all.



turers have taken. The crankshaft is two forged steel pieces and a crankpin all pressed together under umpteen tons of pressure.

The Pioneer is a bit different from many of its contemporaries because it has a drive cushion on the crankshaft. Cushions within the drive train are important in prolonging the life of items like gears, chain, and bearings. The cushion on the Ossa is a double cam affair using a large coil spring to do the dampening. It's very similar to what



MAKE OSSA

MODEL 250cc PIONEER

PRICE AS TESTED \$985.00

MAXIMUM SPEED AS GEARED 80 mph

WEIGHT 259 lbs. Fuel Tank 25% Full

ENGINE

Engine Type 2-STROKE, SINGLE
 Bore 72mm
 Stroke 60mm
 Displacement 244cc
 Compression Ratio 12.3:1
 B.H.P. at R.P.M. 21 AT 6,500
 Carburetor 29mm IRZ
 Ignition MOTOPLAT C.D.I.
 Starting System FOLDING KICK
 Lubricating System OIL MIST

FUEL AND OIL

Oil Capacity IN FUEL
 Oil Recommended FULL BORE
 Fuel Capacity 3.2 GALLONS
 Fuel Recommended PREMIUM
 Approximate mpg 50

FILTERING SYSTEMS

Air OIL WETTED FOAM
 Oil SCREEN
 Fuel SCREEN

FRAME

Frame Type DOUBLE TUBE
 Weight Distribution FRONT: 45%, REAR: 55%
 Wheelbase 53.5 TO 54.5 INCHES
 Ground Clearance 9.5 INCHES
 Peg Height 13 INCHES
 Seat Height 34 INCHES
 Handlebar Width 35 INCHES

SUSPENSION-TYPE

Front TELESCOPIC
 Rear SWING ARM

SUSPENSION-TRAVEL

Front TELESCO 7 INCHES
 Rear TELESCO 3.25 INCHES

DRIVE TRAIN

Clutch Type MULTI-PLATE, WET
 Primary Drive DUPLEX CHAIN
 Countershaft Sprocket 12 TEETH
 Final Sprocket 40 TEETH
 Final Drive ROLLER CHAIN
 Gear Ratios Internal Overall
 1st 3.60:1 27.216:1
 2nd 2.44:1 18.446:1
 3rd 1.82:1 13.759:1
 4th 1.35:1 10.208:1
 5th 1.00:1 7.559:1

TIRES AND WHEELS

Front 3.00x21 PIRELLI MX
 Rear 4.00x18 PIRELLI MX

IMPRESSIONS

	Poor	Good	Excellent
Throttle Response			●
Acceleration		●	
Power Band		●	
Starting		●	
Engine Noise		●	
Muffling		85dB(a)	
Vibration		●	
Handling		●	
Choice of Tires			●
Suspension		●	
Rider Comfort			●
Transmission			●
Instrumentation		●	
Lighting		●	
Toolkit		●	
Paint and Chrome		●	
Styling		●	
Mileage		●	
Braking			●

Distributor YANKEE MOTOR COMPANY
 East: ... P.O. Box 36, Schenectady, New York 12301
 West: 24030 Frampton Ave., Harbor City, Ca. 90710



LETTERS

(Text continued from page 36)

the producers of the LYTA alloy tank as fitted to the Rickman Metisse pictured in the August, 1966 article, "Ducati Metisse Impression." Any information that would aid in the location of this urgently needed part would be greatly appreciated.

Ralph Simpson
Prescott, Arizona

Information on LYTA alloy tanks can be obtained by writing to Highland M. V., 111 South Road, Erdington, Birmingham, England.—Ed.

Dear Sirs:

I have heard that if you take the oil injection system off of Yamaha Enduros, you will have more
(Please turn page)

THE STRONG SILENT TYPE



We don't have to tell you how important quieter motorcycles are. But maybe you're confused by claims and counter-claims from pipe and silencer manufacturers. You want a product that does the silencing job but doesn't rob you of the power you demand. But which one?

Research is the key. No product gets the Bob Bailey label until it has been tested exhaustively . . . on dynos . . . tracks . . . trails. When we finally put it on the market we know what kind of performance it delivers—*more power at the rpm range where you need it.*

In fact, we have Peace Pipes that provide more power at low rpm, others that give more power at top end, and others that boost power across the board.

Maybe it's time you got a Peace Pipe — and join the other strong silent types in the winners' circles.

From \$39.95—See your dealer or write for the price of the Peace Pipe that fits your bike. All mail orders filled promptly.

Calif. residents add 5%.



ACCESSORIES BY

**BOB
BAILEY'S**

Dept. SS-5 Box 2048, Gardena, Calif. 90247

WHY WEAR OUR CYCLE SOX ?



This is a first. The BN Supply cycle sox is the only sox made especially for motorcycle riders. The sox are very durable and will not shrink or lose shape. It is made with 50% wool, 38% acrylic, 10% nylon and 2% olefin. This combination controls the sweating of the feet. They are 28 in. long and will fit most any boot on the market. Color: white foot, gray body and orange top. Order No. 435. Sizes 8-11 and 11-13. Retail \$3.95.

MANUFACTURER
DISTRIBUTOR

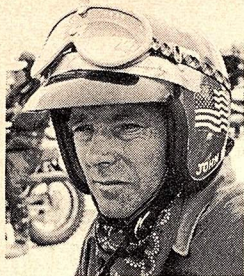
BN **SUPPLY**

7500 El Cajon Blvd.
La Mesa, California 92041
Phone (714) 465-8327

DEALER AND DISTRIBUTOR INQUIRIES INVITED

MEMBER





JOHN PENTON

PENTON JACKPINER

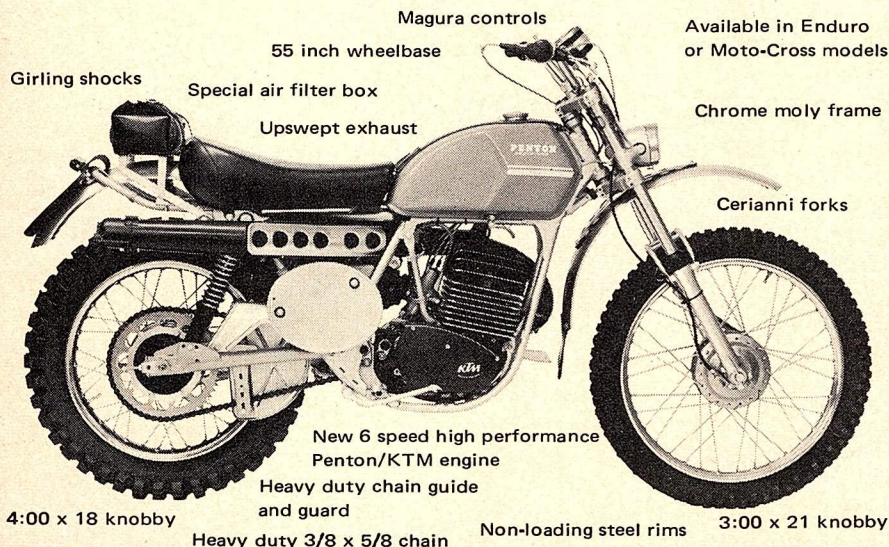
The all new 175cc Jackpiner. Over three years in design and development. The Jackpiner features the new Penton/KTM engine, the most advanced 2-stroke competition engine in production today. Features like 6 speeds and Motoplat ignition assure you of being a winner.

If you're looking for the ultimate in lightweight equipment, look to Penton.

Penton Imports, 1354 Colorado Ave., Lorain, Ohio 44052

Penton Central, P. O. Box 2327, Amarillo, Texas 79106

Penton West, 9604 Oates Dr., Sacramento, Calif. 95827



LETTERS

power and dependability. Is this so? I have a 175 Enduro, approximately how much power increase do you think I'll have? What is the gas and oil mixture if I have a one-ring piston?

I like your mag.

Curtis Fernau

The amount of power to be gained by removing the oil injection system on your Yamaha is minimal. Most people who remove their oil injection systems do so merely to reduce weight.—Ed.

Dear Sirs:

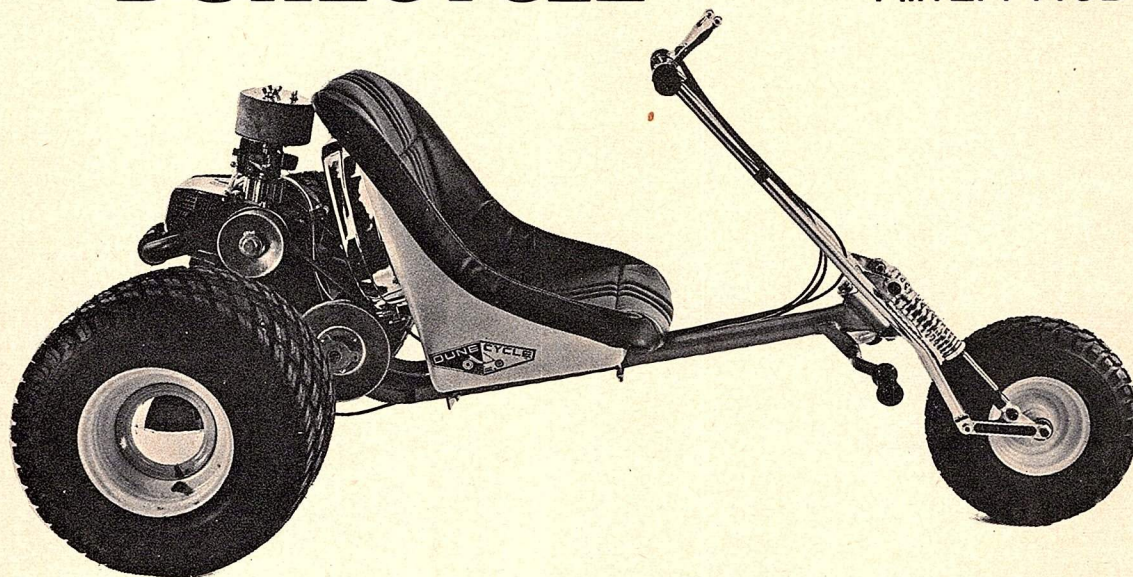
I recently purchased a 360 Yamaha. I found the rear shocks to be useless for racing. I was thinking of KONIs, but they are quite expensive. Any suggestions at all

(Text continued on page 60)

BUY THE BEST DUNECYCLE

T.M.

AND GET THE REST FREE FROM A.P.E. PRODUCTS



1 Year warranty on engine, 90 days on the rest/full seat cushion, 3 1/2" thick/proven "T" bone frame/heat treated 4130 axles/heat treated jack shaft and sprocket/split axles for easy maintenance/differential with dual brakes/adjustable brake levers/torque converter transmission/twist grip throttle/handle bar kill switch/small and light enough to put 4 in a van, 2 in a station wagon or one on your V.W./strong enough for the biggest of men/foot pegs mounted on the frame/first on the market/winners of the N.A.T.V.A., W.A.T.V.A., T.R.A., A.T.A., M.B.E.R.A. and N.R.V.R.A. nationals/driven from Pontiac, Michigan to Los Angeles, California for proven dependability/parts always available/accessories for go and show/7 Models to choose from/3 HP. to 14 H.P./write for more information. Enclose 25¢ for complete information.

JOIN THE CREW IN '72

A.P.E. Products

13727 Excelsior Drive, Dept. #114

Santa Fe Springs, CA 90670

(213) 921-2585

Dealer inquiries invited.

Hey, girls, have you ever tried racing in a Scrambles Grand Prix? The Sportsman Racing Association in Southern California had just such an event this year. Last year was the first Riverside Scrambles Grand Prix, but was mainly for the beginner and Novice racers. The 1972 event, again held at Riverside International Raceway, brought out ALL the classes from Open Expert on down to a Powder Puff class! I attended and participated in this event with 16 other Powder Puffers. The one thing that I didn't realize, though, was the fact that the Powder Puff class was "open" as far as displacement of your machine. (The PP class at District 37 events of the AMA is limited to 125cc machines.)

I must say that the toughest part of the whole race was the physical labor I endured while pushing my 125 Bultaco uphill to the top of the Champion Spark Plug bridge. We were told at sign-up that there would be "no pit riding" at all. Pushing your bike was just part of keeping the peace in the pit area. It sure was nice and quiet! Once at the top of the bridge the contestants were allowed to ride their bikes approximately a half-mile to the starting line. A Le Mans start was the order of the day. Have you ever watched 17 girls run for their bikes with boots and leathers on? I giggled so much that my face shield fogged up on my Bell Star.

The Powder Puff race lasted one complete hour, no time cheating on us here. The course consisted of, I'd say, half pavement (fast straightaways and hair-pin turns), coupled with dirt sections which included mud, silt, hoop-de-dooos, an uphill, turns, a few rocks, two embankments, and a tunnel. It was a fun course which most any girl could conquer.

The 250 Ossa of Nancy Des-Rosiers took the checkered flag first. Nancy just plain out-powered the field on those long, fast



powder puff power

By Jeanne

straightaways. She did get quite a bit of competition in the dirt areas though. Supergirl Joyce Soyka, on a Kolbe-tuned 125 Rickman, challenged and overtook Nancy several times in the rough, but her efforts were lost when Nancy turned her 250 loose on the pavement. Oh, yeah, I finished the whole thing. I placed 10th, which I considered pretty good for a tired, moto cross-type body. I guess I'm stuck in a rut with those 15-minute motos.

If any of you girls in the Southern California area want to try a really neat race next year, look for the advertisements on the SRA Riverside Scrambles Grand Prix. The groovy finisher pins alone are worth the price of the entry!

I just returned from a really super weekend in the desert. (I must confess that I haven't participated in a desert event for 2½ years!) The name of this jovial contest was the Desert Turtles and Rams M.C. Family Fun Run; a fun run indeed!

The first weekend of each month in Southern California District 37 is known as "open weekend," and, therefore, no desert "point" races are held. Open weekends this year are really great for enduros and such where the desert racer is able to attend

something different. The Rams M.C. and Desert Turtles chose to have their own "thing" with competition between the two clubs only. I was invited to participate as a guest of the Rams.

The Desert Turtles' wives and girlfriends were challenging some of the Rams to a duel on a short European Scrambles course. I figured that it couldn't be too tough because Grands Prix courses are longer and cover even greater types of terrain. I rode the course on Saturday just like everybody else and found that it was a fun 3-plus miles. The biggest problem seemed to be the wind that was blowing the silt up into our eyes.

Sunday morning arrived and, for me, it was too soon. (Too much partying the night before.) I forced myself out of my sleeping bag and staggered over to the sign-up table. To my surprise there were only six other girls signed up, and most of them were on the Rams team. I really thought there would be more competition since it was the Desert Turtles challenging the Rams and also because it was a special Powder Puff race only. The men were scattered around the course ready to cheer us on.

The dead engine start bothered me just slightly (my bike has had minor jetting problems and hard starting was common), but luck was with me and it fired up on the second kick. I think we all made it off the line—my only concern was the three girls ahead of me. Three-quarters of a lap later I saw one of the girls "hoofing" it, a broken fuel line had foiled her bid for the win. I kept changing places with fourth place Sandy Ruddy, it was beginning to get frustrating. On the last lap I gathered all my courage together when I saw the second place girl falter and I turned it on harder to stay just ahead of Sandy. At the finish line I was declared a second place finish behind Trudy Stubbs on another Bultaco and Sandy

(Please turn page)

NEW Cycle Sound HELMET SPEAKER

Enjoy your radio
while riding!

Mounts
on
Your
Helmet

Mounts
on all
helmets with
removable
chin straps.
On helmets
with permanent
straps, mount
by drilling
out rivets.

CORD
PLUGS
INTO
YOUR
RADIO

At your dealer
\$5.95
or order
direct

A.S.I.
BOX 117, WOODBURY HEIGHTS,
NEW JERSEY 08097

powder puff power

continued

followed me in for third on a DKW. The Rams were really pleased with their Powder Puff team, and I was pleased just to get a drink of water!

The guys had their own field events and "rat" races after our race. Later, in the afternoon, there was a poker run. The course was geared for everyone to ride, women and children, too. I rode along and just had a ball! I think that more desert clubs should do this type of thing on open weekends. After all, motorcycling is a family sport! I'm ready to try it again.

Do you have a Powder Puff activity in your area? Let's hear about it! Send me your letters, photos, and stories c/o *Modern Cycle Magazine*! Just make a note that it's for Powder Puff Power on the envelope.

Cycle Sentry CYCLE ALARM

Sounds a
Loud Warning
if Theft is
Attempted!

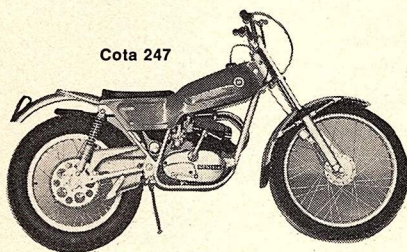
Cannot be
turned off
without
a key!

\$24.95

Universal
tag mount,
installs in
seconds!
Nowiring!

At your dealer
or order direct for \$24.95

A.S.I.
BOX 117, WOODBURY HEIGHTS,
NEW JERSEY 08097



Cota 247

This motorcycle and this rider

won the Scottish Six Day Trials (Team) in 1969, 1970, and 1971
... and the British Trials Championships in 1970 and 1971.

Gordon Farley will be in the U.S. in July/August. Watch
for places and dates of his exhibitions and clinics.

VIVA
Montesa

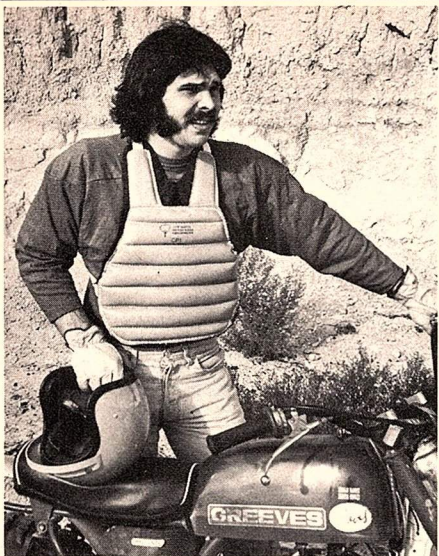
3657 Beverly Blvd., Los Angeles, Calif. 90004



Less Sound
=
More Ground

Gordon Farley on the
famous Pipeline Section,
S.S.D.T.

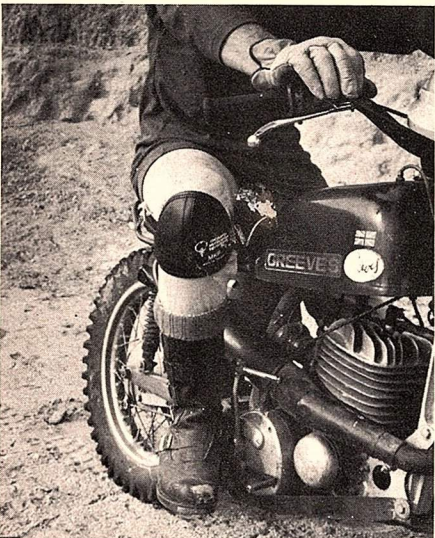




The Jim Davis chest protector is the only major one on the market with fully adjustable straps. This rich yellow protector also contains more padding than some of the others.



The shin and knee guard is one of the most popular pieces of equipment in the line. It is adjustable, lightweight, and can even be worn inside your boot.

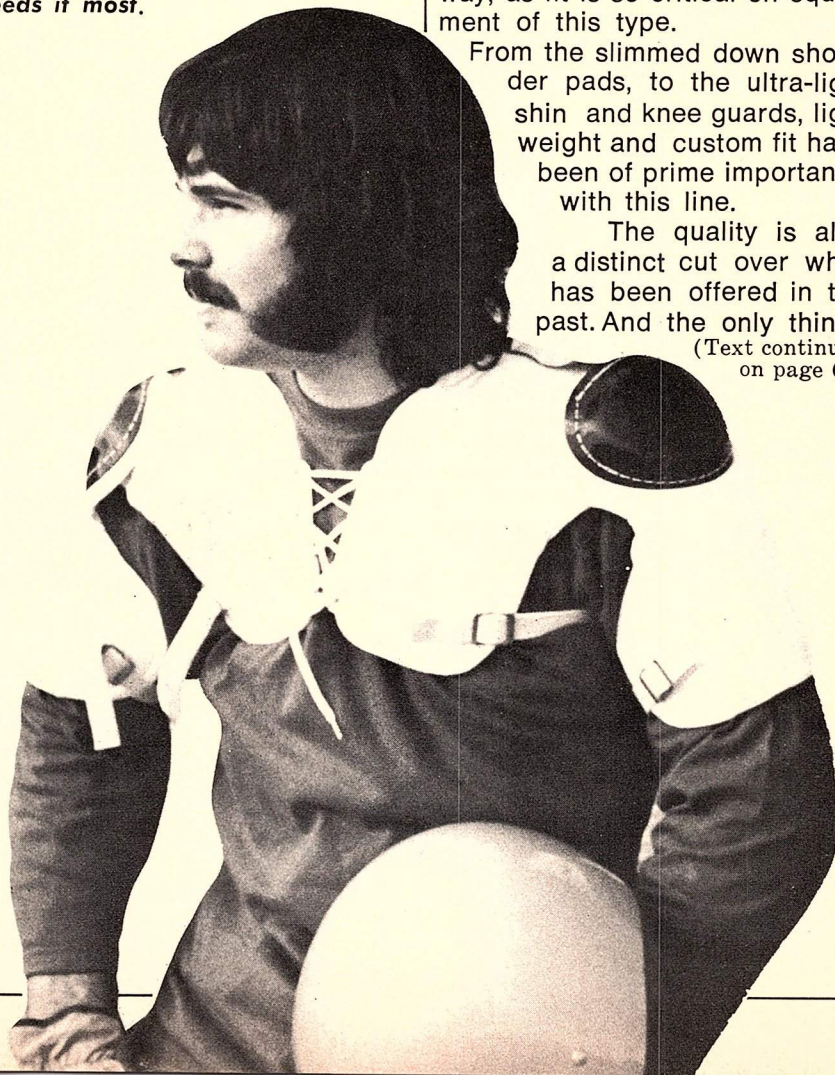


The knee pad can be snapped on and off in just seconds. This saves dragging elastic up and down your leg all day.



The elbow pad is of a quality never seen in motorcycling. It is a three-piece articulating model with comfortable foam padding on the inside.

This is the lightweight shoulder pad with the protection where the biker needs it most.



For years, the rider who wanted to wear protective equipment, with the exception of helmets, had to cut up and modify baseball, football or whatever type of equipment he could get his hands on.

But now, after over 3 years of

PRODUCT EVALUATION: SAFETY EQUIPMENT

NOW HERE'S SOME
PROTECTIVE GEAR
DESIGNED FOR THE
MOTORCYCLIST

research and modification the Jim Davis Company presents a line of gear that has been designed and built exactly to the motorcyclist's needs and specifications.

No longer do you have to cut away other pieces of sports equipment. This is dangerous anyway, as fit is so critical on equipment of this type.

From the slimmed down shoulder pads, to the ultra-light shin and knee guards, light weight and custom fit have been of prime importance with this line.

The quality is also a distinct cut over what has been offered in the past. And the only things

(Text continued
on page 66)



LETTERS

(Text continued from page 56)

would be helpful to me. Also, what would be my best choice of expansion chambers, a torque pipe or rpm pipe? I really dig your magazine, keep up the good work.

Rocky Tester
Portland, Oregon

Anything for racing is expensive.—
Ed.

Dear Sirs:

I purchased your February issue of *Modern Cycle* and I read the section titled, "Letters From The Troops." One person wrote and asked you when Evel Knievel was going to jump the Snake River and you told him the weekend of May 6 and 7, 1972. The thing is, Evel either changed the date of the jump or my information is wrong. I heard from a number of people and read about it in a motorcycle paper that Evel Knievel was supposed to jump the canyon on Labor Day weekend 1972. I hope you can help me straighten this out.

Tom Buchanan
Auburn, Washington

At the time the February issue of *Modern Cycle* was "put to bed" publicity concerning Evel Knievel's jump of the Snake River indicated that it would take place the weekend of May 6 and 7. Since then plans may have changed.—
Ed.

TARABUSI

Racing Pistons Complete with Dyke Rings, Pin, and Circlips. Comes in Standard and Four Oversizes. Each oversize increases 0.5mm instead of 0.25mm. Tarabusi Pistons Available in Six Oversizes.

MODEL	S.L.P.
125cc Bultaco Sherpa	\$16.00
200cc Bultaco Sherpa	16.80
250cc Bultaco Pursang	17.80
250cc Bultaco Matador	17.80
250cc Bultaco Pursang 5 Port	18.80
360cc Bultaco Bandido	21.00
125cc Montesa	16.00
250cc Montesa Capra	18.00
250cc Montesa 5 Port	18.80
360cc Montesa Capra	21.00
125cc Maico Enduro-Scrambler	16.00
250cc Maico T-5-5 Port	23.00
360cc Maico Enduro-Scrambler	28.00
400cc Maico Enduro-Scrambler	28.00
250cc Husqvarna	22.00
360cc Husqvarna	28.00
405cc Husqvarna	32.00

Liners, rings, circlips, pins available separately.

DISTRIBUTORS

MOTO CROSS SALES
P.O. Box 7761
Independence, Ohio
(216) 524-7763
OHIO, KY., TENN., N. & S. CAROLINA

HOFFY'S SERVICE
1249 First Street
Huntington, Indiana
(219) 356-3328
MICH., IND., ILL., WISC., MO.

SHADCO HONDA
2305 E. 10th Street
Sioux Falls, S. Dakota
(605) 336-3238

MIDWESTERN STATES
ACTION ASSOCIATES, INC.
2720 W. Bethany Home Road
Phoenix, Arizona
(602) 263-8301

WESTERN STATES
PERFORMANCE PRODUCTS
4270 North Dixie Hwy.
Pompano Beach, Florida

(305) 942-6922
SOUTHERN STATES
GENE SHILINGFORD & SONS, INC.
Green Lane & Radcliffe Street
Bristol, Pennsylvania
(215) 788-7878
NEW ENGLAND & EASTERN STATES



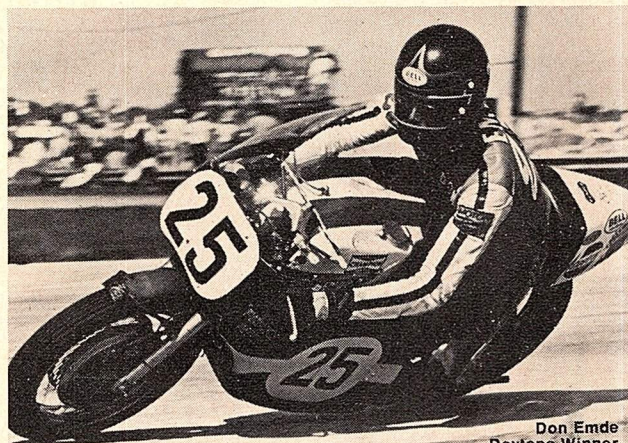
WALKER MECHANICAL AND
RECREATIONAL PRODUCTS
1230 N. Skyline Drive
Idaho Falls, Idaho 83401
Phone No. (208) 523-0871
Territories:
Utah, Idaho, Wyoming and Montana

Daytona or Beverly Hills... Bell belongs!

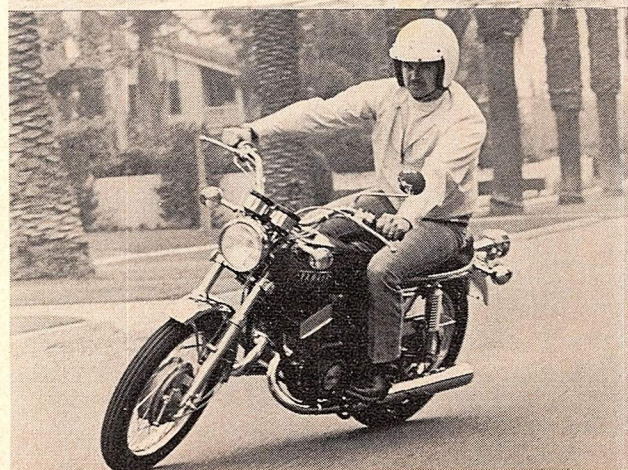
The terrain may be different, but the requirement for head protection is the same. The best! That's why more professional competitors **choose** Bell Helmets than all other makes combined. Make your next helmet the **choice** of professionals. Bell. See your motorcycle dealer.




Insist on this
mark on every
helmet you buy



Don Emde
Daytona Winner





HOPPING UP YAMAHA'S NEW CT-2 TORQUE INDUCTION SINGLE

Back in our April, 1971 issue of *Modern Cycle* we featured a hop-up on the now old piston port 175cc Yamaha single. The story was built around ace tuner and rider Larry Shoemaker, who was then and still is the service manager at International Motorcycle, Inc., Canoga Park, California. This article was extremely popular out in read-erland which proved our theory that great amounts of interest are stirred up with factual features dealing in methods to extract more horsepower from a given motorcycle engine.

For 1972, Yamaha introduced Torque Induction (reed valves), creating a whole new ball game for Shoemaker. After many hours of work, and several discarded cylinders, the Shoemaker method was successfully applied to a reed

engine resulting in 70% more horsepower at the rear wheel, a very wide power curve, plus all the non-temperamental features of a reed valve two-stroke.

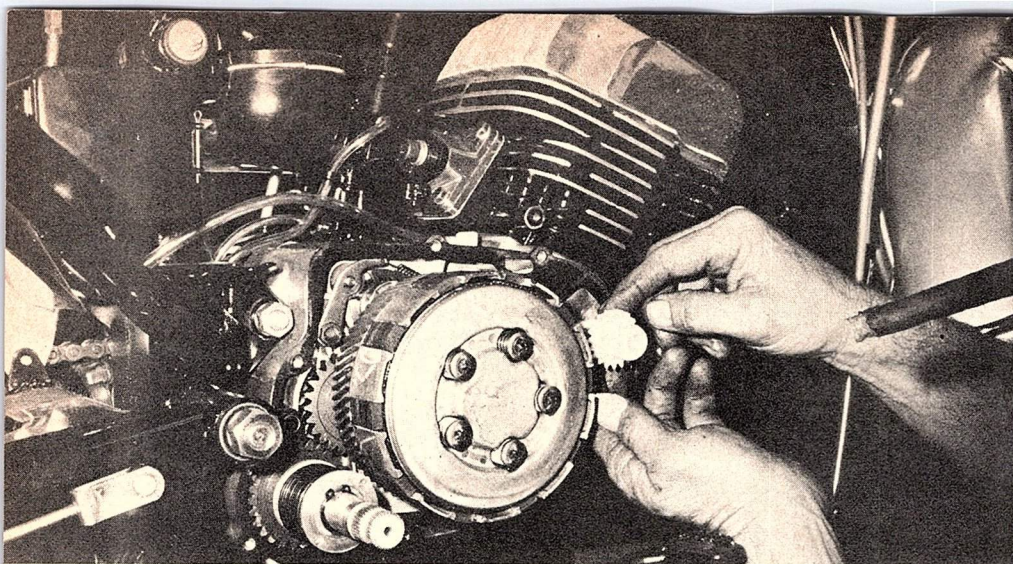
Starting with an out of the box CT-2 the service department at International M/C starts filling a large cardboard box with all those unnecessary street items that come on the bike. During this operation the oil tank is removed along with the oil pump and its nylon driving gear found on the inside of the outer right hand case. An alloy casting and gasket cover the hole left by an absent oil pump, and that's all that's done to the lower portion of the engine. Two O-rings found on the discarded tach drive and speedo drive cables are slipped over a pair of special

THE SHOEMAKER METHOD TURNS THIS TRAIL TOURER INTO A RACE TRACK TERROR. A 70% INCREASE AT THE REAR WHEEL IN LESS THAN 8 HOURS.

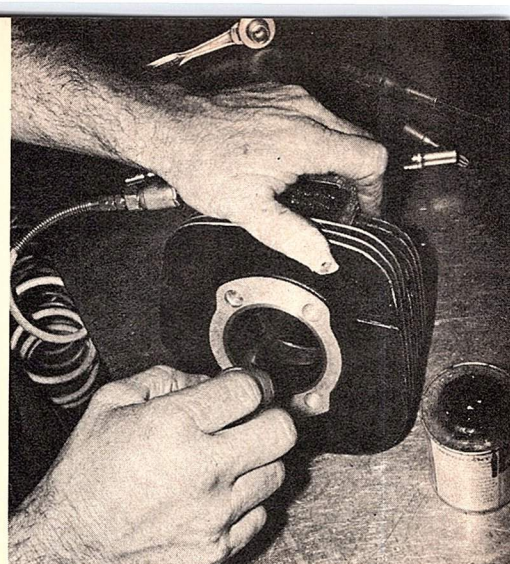
plugs supplied by Yamaha to fill the holes in their respective castings.

By now the cardboard box has become quite full with such items as turning indicators, wiring, and a battery. Actually, 23 pounds of street equipment are removed from the CT-2 not including its exhaust pipe assembly. Later we ran some dyno tests with the standard spark arrester/muffler and International Motorcycle's special silenced tuned pipe (more about that later).

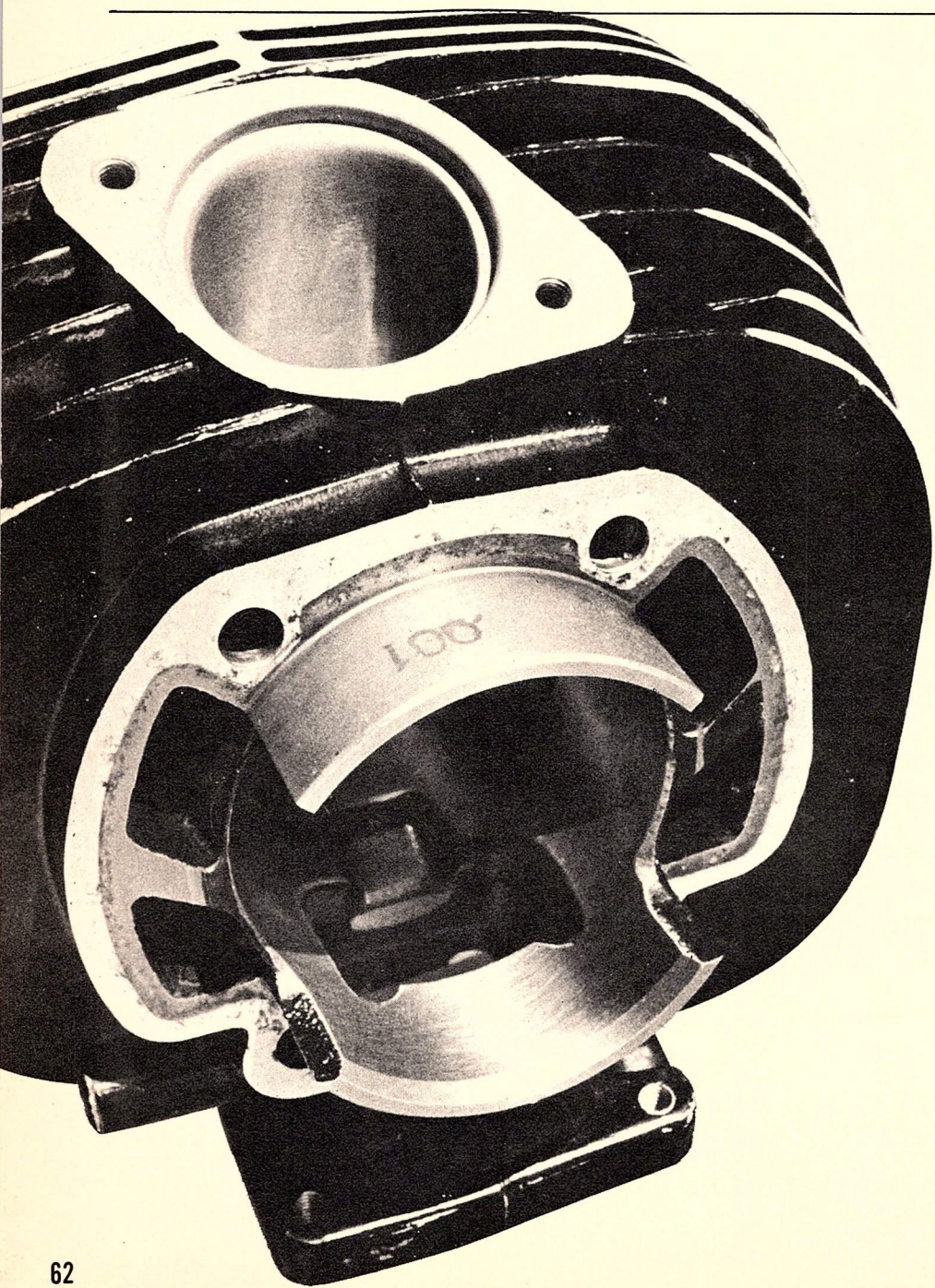
Most of Shoemaker's secrets lie within the cylinder, cylinder head, and carburetor. These three pieces are removed and attached one at a time. 1.5mm is shaved from the bottom of the head and a new squish band is machined in to match the cylinder's bore. When



With the right hand case cover removed this nylon oil pump drive gear just slides off.



Machinists Dykem blue is painted around the ports in the cylinder prior to scribing.

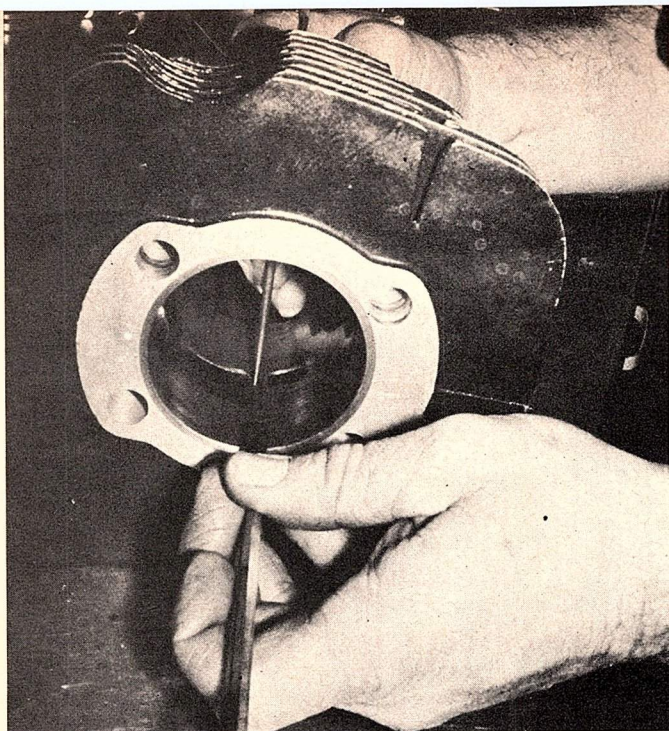


bolted together this area between the piston top and squish is critical, it should have an air gap of .020 to .030 of an inch when the piston is at Top Dead Center. Yamaha's claimed compression ratio for the CT-2 of 6.8:1 (measured from the top of the exhaust port), is upped a couple of points, but not enough to get into marginal combustion temperatures.

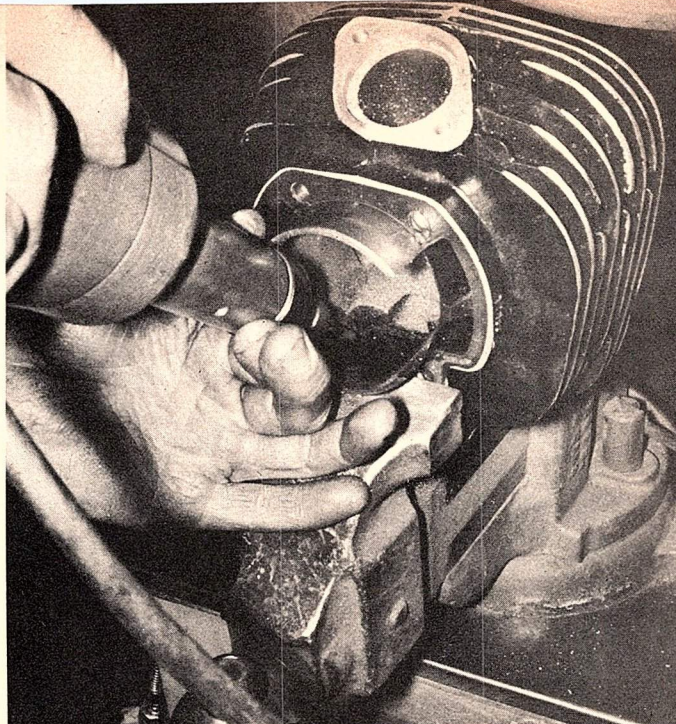
The CT-2's reed inducted cylinder gets most of the hand work and is responsible for the largest increase of horsepower. (Yamaha's single revolutionary advancement when they went to the reed valve is the addition of a cavity in the inlet port that allows some of the incoming fuel to blow over the top of the piston when it is at Bottom Dead Center. This is fuel that has gained its velocity during the inlet stroke. As the piston reaches bottom the vacuum in the cases has diminished, an opening suddenly becomes available at the top of the piston so the fuel rapidly changes direction and goes directly to the combustion chamber.) 2mm is taken off the upper part of the inlet port and a larger radius is ground in to aid this flow into the third port (ref: figure 1, section A-A). If you measure from the top of the cylinder to the bottom of the inlet port you'll find this dimension to be 85mm. An additional 2mm is ground out at the piston side of the cylinder and two fingers at the outer sides of the inlet port that go way down to 91mm and have 3mm radii (ref: figure 1).

To take care of this increased flow of fuel into the engine the upper portion of the main transfer ports are raised to 39mm from the top of the cylinder (ref: figure 1, section B-B). The exhaust port is raised 3mm to 27mm and about 1mm is removed from

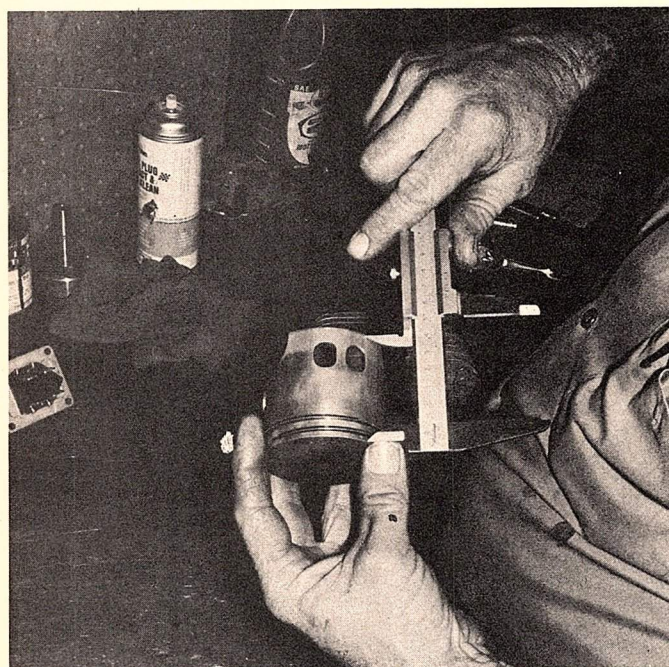
The completed barrel, a good view of the modified inlet port. The cylinder has been honed and washed and is ready for installation.



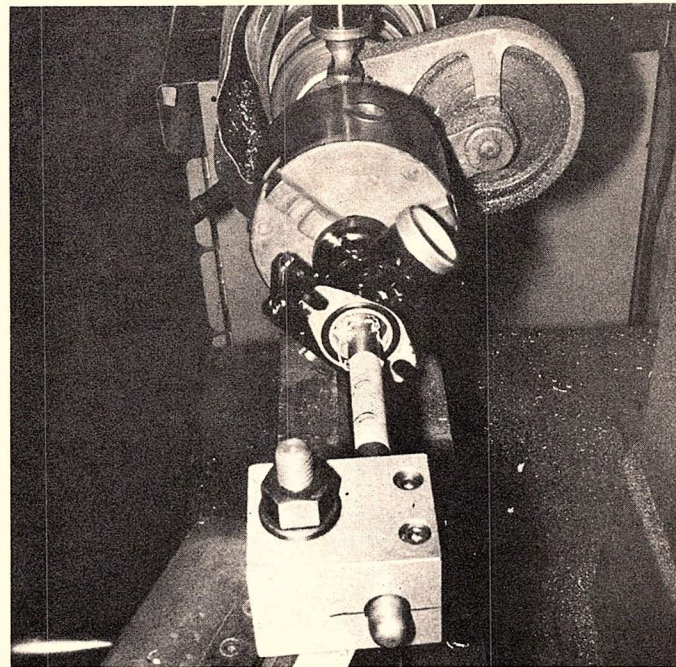
Thin scribe lines are scratched into the Dykem to serve as guidelines for the grinding chore.



Modifying 2-cycle cylinder ports not only takes special tools but a special talent, also.



Measure the height of the piston at the edge, subtract 1mm in the calipers, and scribe a line at the skirt.



The boring of a Mikuni. This delicate operation is very important to the CT-2's performance.

the entire exhaust port downstream of the opening. Both exhaust and inlet holes are polished to a fair degree, and the upper and lower edges of the ports are slightly chamfered with a half round file to keep from snagging piston rings. Only 1mm is cut from the skirt of the piston on the inlet side, this small amount is all that's needed in view of the work that has been done on the inlet port.

It's highly recommended to replace cylinder gaskets when reassembling. Yamaha's Autolube injector ties into a fitting on the outside of the inlet manifold. With the oiler removed a simple 6mm screw fitted with a fiber washer

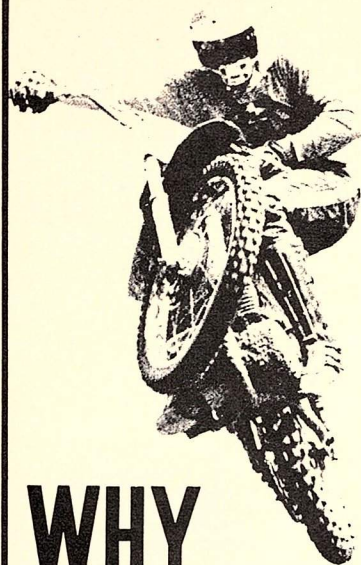
is all that's necessary to plug the hole.

The standard 24mm Mikuni carburetor actually measures 23.6mm in diameter. It is stripped down to its basic casting and bored to 26.6mm in diameter. A new seat has to be cut in the bottom of the venturi area so the slide will shut off. With this larger diameter venturi only about $4\frac{1}{4}$ full threads remain in the body for the needle jet to screw into. The venturi diameter has been increased 3mm, and if the needle jet is screwed back in it would protrude into the venturi too far. So a 1.5mm brass washer is slipped onto the needle jet before it is installed so it will remain at its proper height. The

needle is left in its central position and the main jet increased from the standard 200 to 240. (If a high performance Filtron or Unifilter is used then a 250 or 260 main jet is recommended.

With a new head gasket the cylinder head torques down to 22 ft. pounds. The inlet manifold and insulator block are opened up to match the carburetor and the whole thing is bolted back together. Remember, nothing was done to the reed block itself.

Only the black wire coming from the flywheel magneto is used. It's attached to the coil with an extra lead going to a kill button. Ignition timing in stock form is 1.8mm Before Top



WHY SUBSCRIBE TO MODERN CYCLE?

For 12 good reasons!!! Each issue of Modern Cycle magazine offers easy-to-follow technical articles and tune-up features that enable the average motorcyclist to maintain his machine in top condition. The information in one issue of Modern Cycle magazine could save you the cost of a full year's subscription. Start the new year right . . . fill out the attached coupon, mail it and a check or money order for \$5.95 to Modern Cycle Magazine, 7950 Deering Avenue, Canoga Park, California 91304.

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP _____



HOPPING UP YAMAHA'S NEW

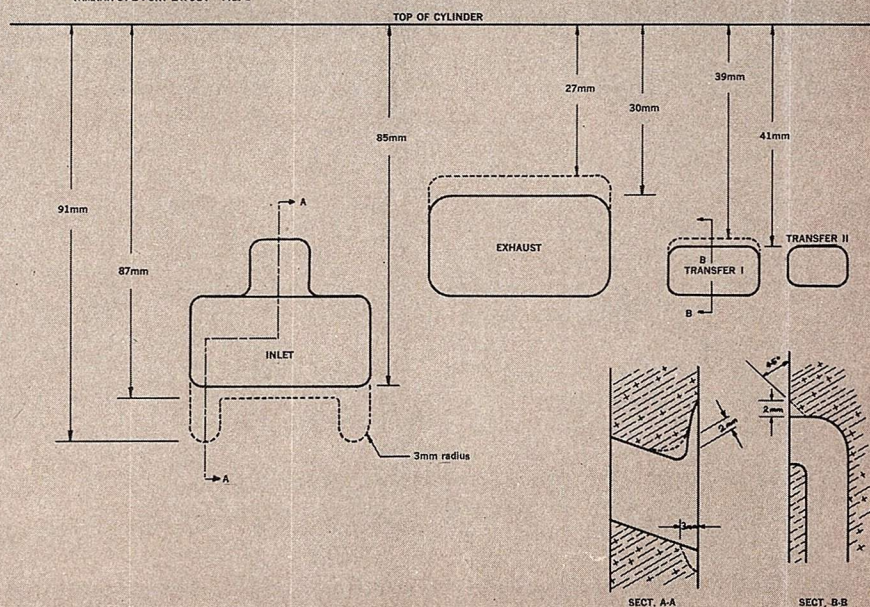
Dead Center (BTDC). In order to take full advantage of this port work the ignition spark lead is increased to 2.4mm BTDC. Something else you'll need are two 8mm bolts, 50mm long. They replace the rear turning indicators and are needed to hold the fender in place.

With all the excess weight trimmed off the CT-2 weighs 185 pounds wet. The engine has a very broad power band thanks to Torque Induction and is not the least bit temperamental to start. The bike goes like gangbusters and if you're not careful it will pull all the way over in second gear dumping you on the terra-firma. First gear is just ridiculous and remember, there

has been no changes made to the gearing; it has that much more torque and horsepower.

On International M/C's dyno the stock engine, before we altered it, was pulling 10.2 horsepower at the rear wheel and an estimated 15.4 at the crankshaft. With the stock spark arrester/muffler exhaust pipe the modified CT-2 pulled 15.5 at the rear wheel, an estimated 22.5 off the crank, and turning 9,000 rpm. Fitted with the Intenational M/C silenced expansion chamber the CT-2 would spin to 9,800 rpm, put 17.4 horsepower to the rear wheel and an estimated 27.2 at the crankshaft. Truly a lot of horsepower for so little effort.

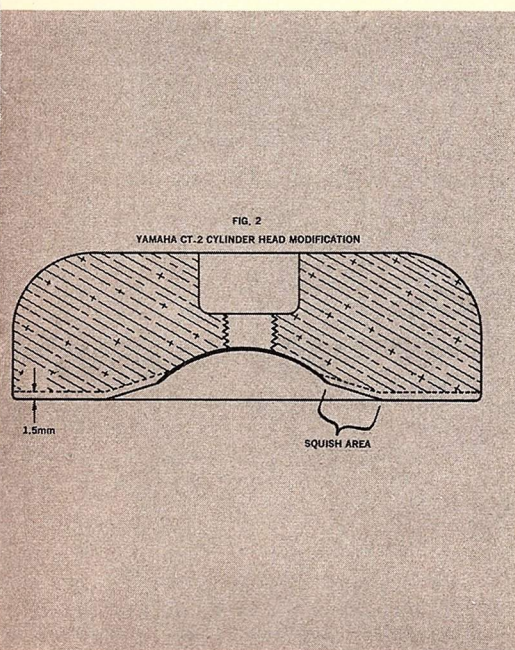
YAMAHA CT-2 PORT LAYOUT FIG. 1





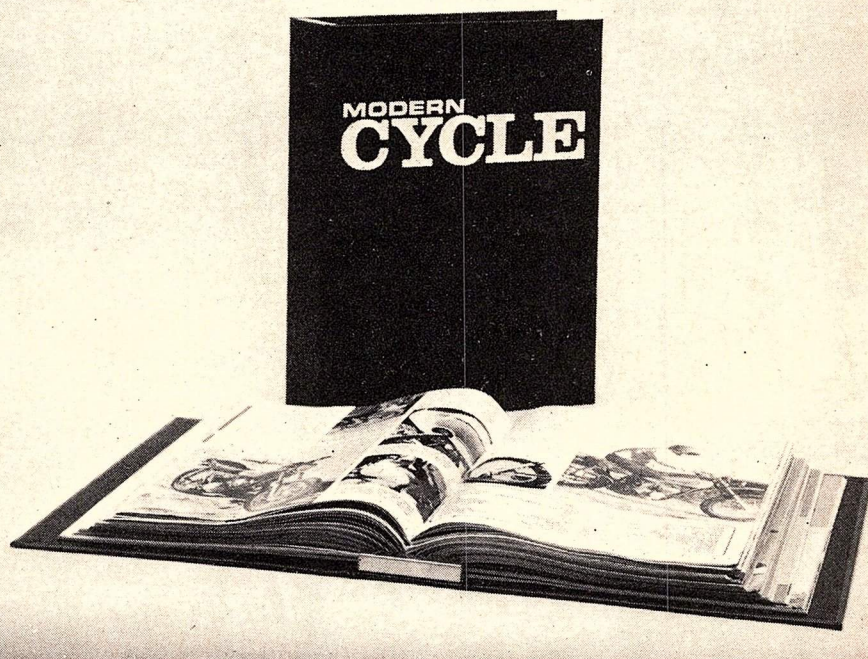
CT-2 SINGLE

International M/C has several ways to go for those eager to convert their mild mannered CT-2 into an exciting handful of power. If you send them the pieces they will modify the carburetor for \$20.00, do head work for \$10.50, and the cylinder for \$30.00. Their silent expansion chamber goes for \$46.95. These pieces are labor only and the extra work for removing pieces, shipping, etc. is more. If you want the whole tricked up racer they have them available too; \$795.00. Any way you look at it the price for all this power and fun is reasonable. For more information contact, International Motorcycles, Inc., 7233 Canoga Avenue, Canoga Park, California 91303. ●



BINDERS

Due to the many request's by our readers, we are now able to offer you this beautiful art leather binder with "MODERN CYCLE" in gold letters on the front and spine. Each magazine can be inserted or removed individually. It holds 12 issues and is just the thing to protect those priceless back issues.



MODERN CYCLE BINDERS

☐ \$4.25 FOR ONE ☐ \$7.95 FOR TWO
WE PAY THE POSTAGE

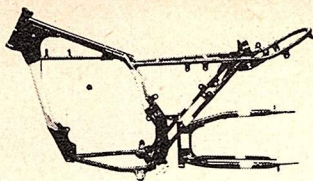
PLEASE SEND CHECK OR MONEY ORDER TO:
MODERN CYCLE PUBLISHING CO.
7950 DEERING AVE., CANOGA PARK, CALIF. 91304

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

CALIF. RESIDENTS ADD 5% SALES TAX

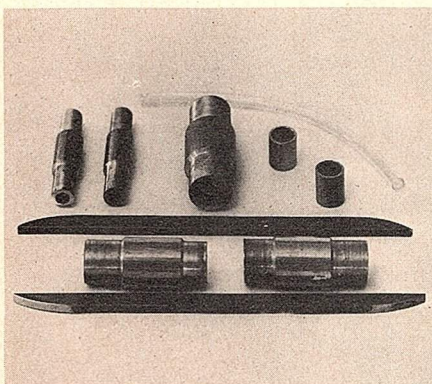


RIDING TOO HIGH?

K & G Will Bring You Down
Frame Modifications available for the following models:

Yamaha—AT-1 & CT-1	\$65.00
DT-1, DT-2E, RT-1, RT-2E	\$39.95
HT-1	\$49.95
Suzuki—TS-125 & TS-250	\$49.95
TM-400	\$75.00
Kawasaki—F4 & F7	\$49.95
Hodaka—All Models	\$68.00

Other makes and models upon request. K & G will take your frame and lower its center of gravity for better handling. Swing arm is more horizontal and improves shock angle. Guaranteed workmanship.



BRING YOURSELF DOWN

Frame modifications kits available for the following models:

Yamaha—AT-1 & CT-1	\$19.95
DT-1, DT-2E, RT-1, RT-2E	\$14.50
Hodaka—All Models	\$21.50

All prices plus shipping. California residents add 5% sales tax on kits. Send 50¢ for information to:

K & G Engineering
(originators of the lowered frame)
2353 San Fernando Road
Los Angeles, California 90065
(213) 222-8778



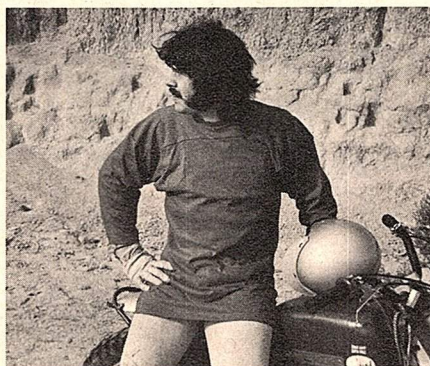
See it at your nearest dealer, or write for a free brochure:

Safety Reflex, Inc.
P.O. Box 5370
San Bernardino, Calif. 92408

SAFETY

more attractive than the quality are the low prices.

For years it was considered "sissy" to wear any kind of protective gear while racing or riding. But just last year on the AMA tour, several of the top flat track plates were seen wearing the shin and knee guard for protection from the beating their legs take.



Believe it or not, this rider is actually wearing the shoulder pads. You would never know it and this is part of the appeal of the line.

Perhaps most importantly, this equipment is designed with the weekend cow-trailer or pleasure rider in mind, just as it is for the racer. Not only is the gear good looking and comfortable, but it really does work! The first time a branch cracks you across the shin and you can't feel it, you can really appreciate what the gear can do.

Another thing that this equipment is especially good for, in addition to preventing injuries, is to protect your old injuries. If something hurts, you can comfortably cover it up to prevent further damage.

If you choose, this equipment is designed to be worn *inside* your riding clothing, and as with the shoulder pads, you can't even tell. No longer do you have to look like one of the Dallas Cowboys when you ride!

For more information on this attractive and comfortable line of protective equipment, please contact Growco Enterprises, P.O. Box 1202, Dept. MC, Canoga Park, California 91304.

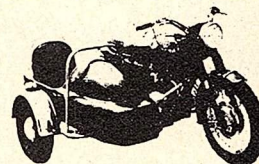
Remember, now you don't have to use some other sport's hand-me-downs; you have some equipment all your own.

We Have the WEBCO Parts You've Looked For!

Thanks to our Super-Speedy Mail-Order Service, those WEBCO parts, accessories can be mailed to you within 24 hours!!
Do This: Write Dept. W-281, giving Webco catalog no., product name, price. Include check or money order for total, with estimate of shipping cost added. Excess will be refunded. Calif. resident add 5% tax. COD orders require 25% deposit. Webco Catalogs are available for \$1 ppd. Satisfaction Guaranteed or Money Refunded!!!
Visit our Store!

SPEED CENTER, U.S.A.
★★★★★★★★★★★★★★★★★★★★
825 S. VICTORY BOX 470 BURBANK, CA. 91502 (213) 845-8848

DOUBLE UP WITH BINGHAM MK-I SIDECAR



Fits Most Motorcycles
High Quality
Low Cost
Do-It-Yourself Kits

From SIDE STRIDER, Inc.

Write or Call For FREE Brochure to:

SIDE STRIDER, INC.
15838 Arminta St., Unit 25, Dept. MC7
Van Nuys, Calif. 91406 - Call 213/781-9908
COMPETITION MODELS AVAILABLE

THE FIBERGLAS WORKS
Presents
INDESTRUCTIBLE BEASTS

T-129
from the Fiberglass Works. Moto-cross goes get ready for two tough tanks made of Uralite, which weigh only 1.5 pounds.
The T-129 European Style Universal Tank fits any bike.

The T-133, is a super narrow 1.5 gallon Husky Tank. Both tanks come in standard colors and primer, and include mounting kit and a 100% life-time guarantee. \$39.95
THE FIBERGLAS WORKS, INC.
328 Engalls, Santa Cruz, Ca 95060 (408) 426-7305 T-133

MOTOCROSS

SUBSCRIBE

Norton - SALES PARTS

Western Canada's Largest stocking dealer for all 750cc. models!

MAIL ORDER SERVICE ANYWHERE!

Chopper Goodies for:

NORTON	HONDA
TRIUMPH	YAMAHA
BSA	KAWASAKI
H-D	SUZUKI, etc.

FREE CATALOGUE

CHARIOT CYCLE LTD.

Box 3534, Station "B," 303 Selkirk Ave.
Winnipeg, Manitoba, Canada R2W3R4

New

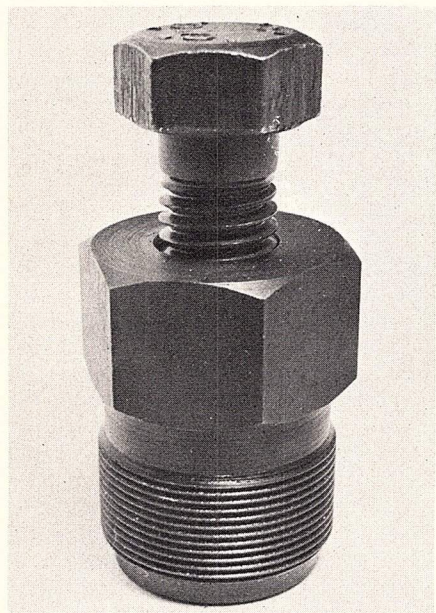
(Text continued from page 31)

SUPER PULLER

If you have bent or broken a flywheel lately, then this is a must for you. This super magneto flywheel puller is all U.S. made of hardened steel. The larger diameter center bolt can't bend or break.

The flywheel puller is available for the following models: All Yamaha singles; Hodakas; Suzuki's 50cc, 90cc, and 120/125cc singles; Kawasaki's 90cc, and 100cc; and Honda's 50cc, 65cc, 70cc, and 90cc.

The magneto flywheel puller re-



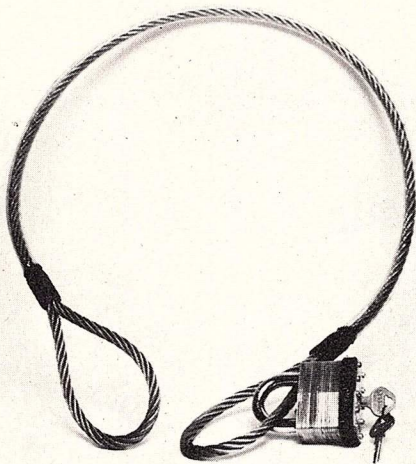
tails for just \$3.95. Ask for yours at your local K&N dealer, or you may write directly to, K&N Engineering, P.O. Box 1329, Dept. MC, Riverside, California 92501.

ANTI-THEFT SLING

A new motorcycle sling that provides better protection against cycle theft has been developed by M & J Supply, a couple of cycle enthusiasts, located in Texas. Termed the "Super Sling," it is manufactured of 3/8-inch gauge galvanized aircraft control cable. This cable has a tensile strength of 14,000 lbs., and it will not rust. The sling cannot be cut by ordinary methods, such as bolt cutters. Two loops, one at each end are held by steel collars

pressed on under tremendous pressure. A tough vinyl plastic jacket encases the cable between loops. This helps prevent scratching the cycle.

Lengths of 3, 5, and 6 feet are most popular. Other sizes available range up to 20 feet. Slings can be made to any length on special order. The Super Sling is much lighter and less expensive than an equivalent length of chain. The supplied lock is case hardened, with a $\frac{3}{8}$ -



inch shackle. A plastic strip around the lock also serves to reduce the chance of scratching.

Super Slings are available in some cycle shops, and from the manufacturer. For information contact M & J Supply, Dept. MC, 3519 Bellefontaine, Houston, Tex. 77025.

PACIFICO CATALOG

Pacifico's new '72 catalog of motorcycle accessories is now available. The new catalog includes the guaranteed "Super 2"

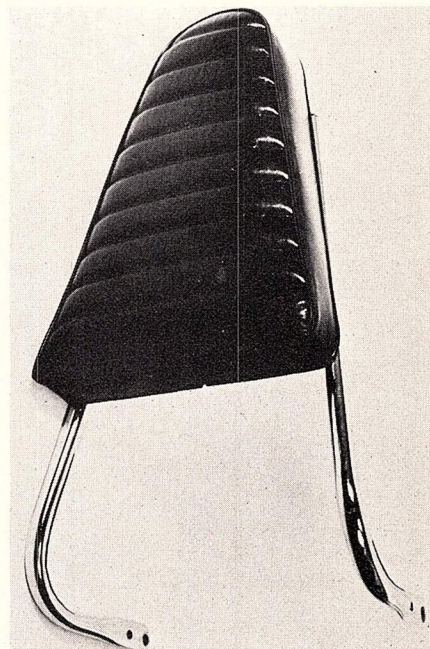
[illegible]

lightweight racing fenders in four colors, and more than 20 sizes to fit most bikes. Also included are battery eliminators, AMA approved number panels, and other Pacifico accessories.

Pacifico products are distributed nationally and available through local motorcycle dealers. You may obtain a copy of the new catalog, and a fantastic Super 2 Racing Fender decal, by sending 25¢ to cover postage and handling to, Pacifico Incorporated, P.O. Box 348, Dept. MC, Gresham, Oregon 97030.

RACK REST

If you have a "Cycle Rax" you want to add this comfortable accessory. National Recreation Products, Inc. (formerly Barnes) has made the square tube cycle luggage rack famous, now they offer a complete line of racks and back rest combinations. The "Rack Rest" comes in two sizes, the Hi



Rest (pictured), and the Low (a short pad with new half round top). They bolt on in seconds to your Cycle Rax.

Specify make, model and the year of your motorcycle when ordering. The Rack Rest retails from \$14.95. Ask for a free brochure on the complete line of Cycle Rax and accessories. For the name of your local dealer contact, National Recreation Products, 1436 W. 15th Street, Dept. MC, Long Beach, California 90813. ●

IS THIS A NECESSARY BOLT-ON?

We all know that lubrication is life's blood of an internal combustion engine. In today's ultra-sophisticated high performance four-cycle motorcycle engines oil is forced through passages to form a pressurized oil film between bearing surfaces to insure a long useful life. Oil thrown off from whirling connecting rods and oscillating rocker arms form a mist to lubricate valve guides and cylinder walls, with the reason for this whole scheme being longevity of life.

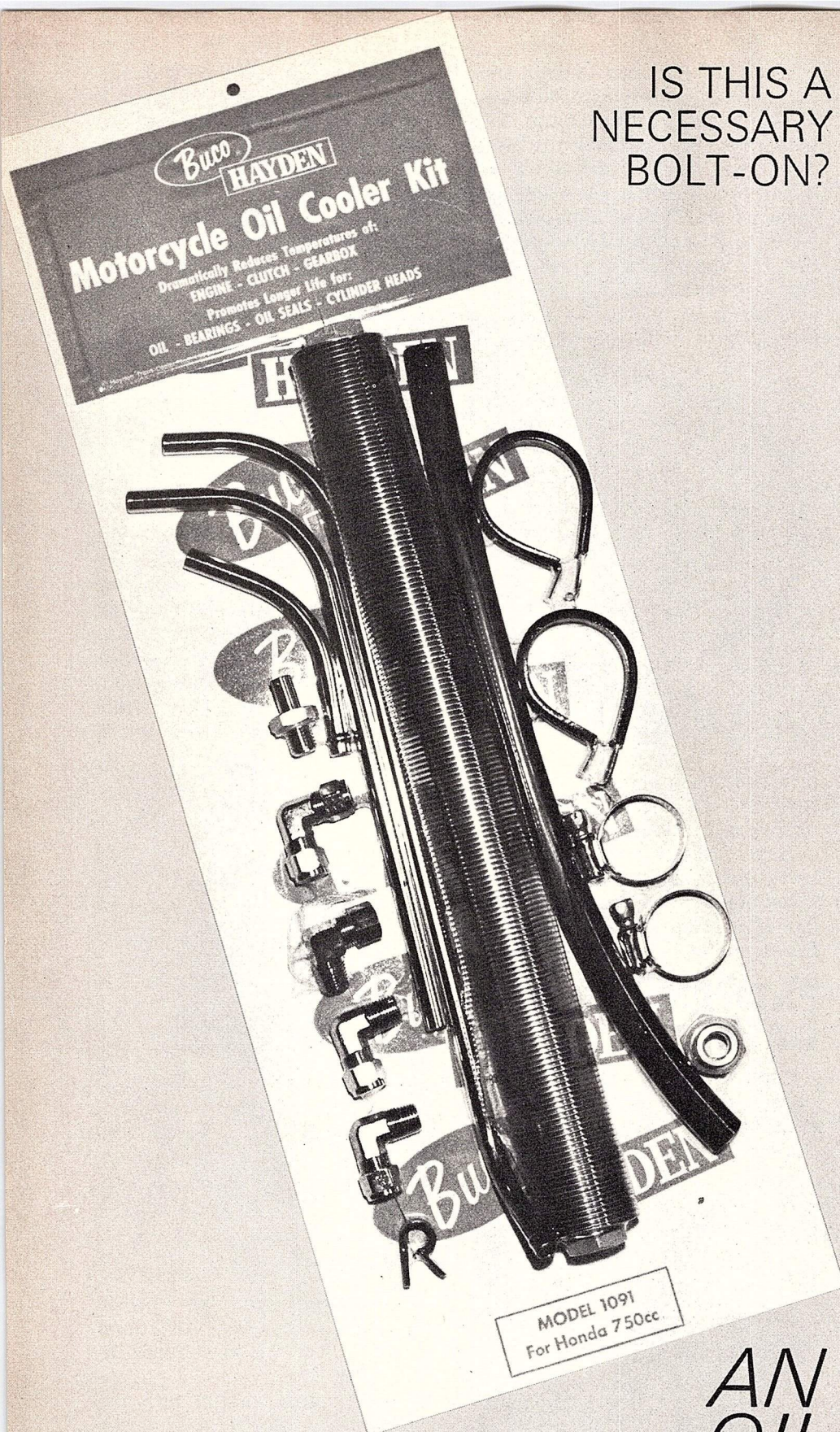
This brings us to our next subject, engine oil. There are many types all engineered to do the same job under varying conditions. Narrowing our scope to within that of the touring motorcycle we find multiple grades and single grade petroleum based oil. In areas like Alaska they say to run 10w in the summer and dilute 50% with kerosene in the winter, this is an extreme condition. Generally, touring bikes rely on a good grade of 30w oil, change it periodically and the engines run a long time.

Even though modern motorcycle engines are fitted with oil filters they require the filter and oil to be replaced after so many miles. The reason for this is contamination and something they call oil oxidation.

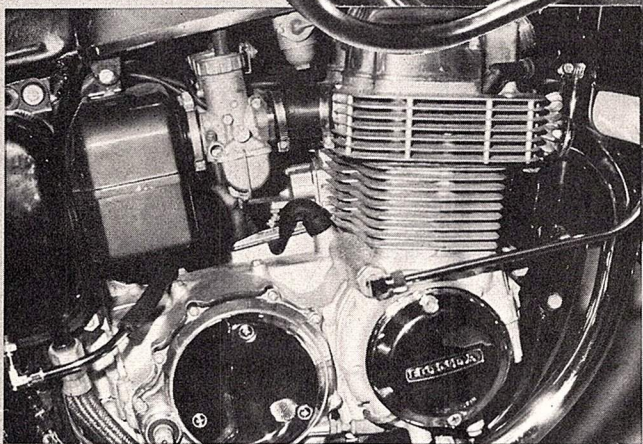
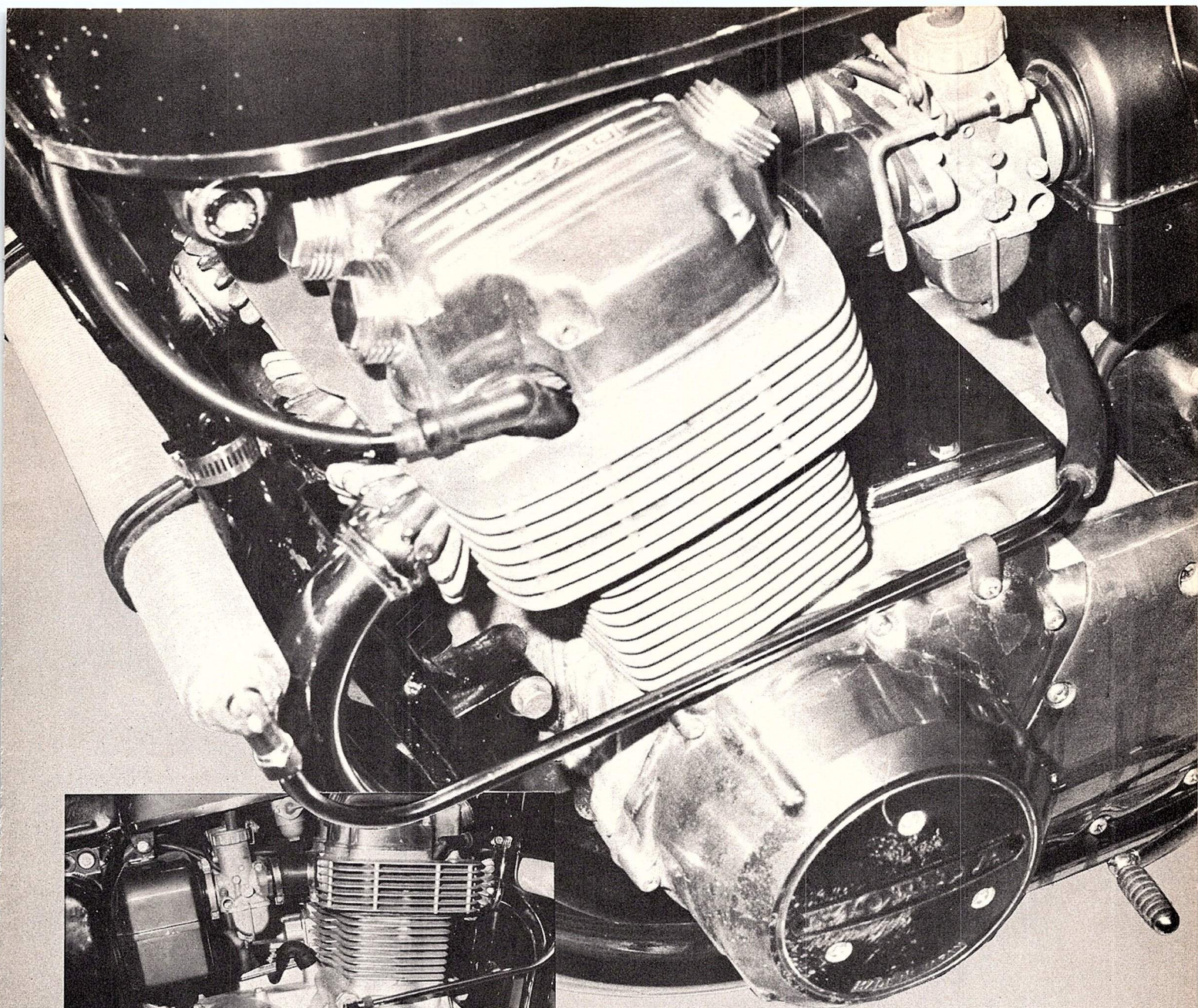
The molecular construction of engine oil makes it slippery and allows it to keep these properties under reasonable amounts of pressure and heat. Through normal use engine oil becomes contaminated with some gasoline that bypasses the piston rings and water that condensates as the engine cools off. They have determined when oil temperatures run between 180 to 220 degrees F. water vapor and fuel condensation evaporates, but not until it has left some contamination in the oil. After this process is repeated many times the oil loses its lubricating ability and should be changed.

These contaminants plus excessive temperatures cause oil oxidation. This is a chemical reaction that changes the molecular construction of the oil. It thickens due to the production of carbons and ash which act adversely on its ability to reduce friction (remain slippery). As the percentage of these contaminants increase, and it manufactures these chemicals while you're riding the beast, the oil's ability to dissipate heat is decreased.

Heat itself is the major cause of oxidation. Engineers believe oil temperatures should run above 180 degrees F. in order to evaporate much of the contamination. Above 200 degrees F. oxidation begins to show its ugly head. Above 215 degrees F. the useful life of the oil is cut in half with each 20 degree rise in oil temperature. Thus the reason for engine oil coolers.



AN OIL COOLER FOR THE CB-750



The Hayden people have been making automotive engine and transmission coolers for a long time now. Recently, in conjunction with Buco, they developed an oil cooler for the Honda 750cc Four. They went through a long series of tests and found the Honda Four, under extreme use on the highway, would push its oil temperatures up to 270 degrees F. Its normal oil temperature would run around 225 degrees F. after 45 minutes or more of riding. Point it up a long grade and the temperature increases.

The Buco/Hayden oil cooler is of the by-pass type. The cooler inlet tube bolts into an oil galley in the Honda's cases with an elbow that has a check valve in it. This check valve opens at

40 psi. At operating engine temperatures they say the Honda pushes about 25 to 40 psi through the galley, it maxes out at about 70 psi. Oil from the galley is fed to the camshaft bearings and returns to the crankcase by gravity where it is picked up by a scavenging pump and sent back to the oil tank.

The oil cooler picks up the oil which isn't going to the overhead cam when there is enough pressure to open the check valve. There are special tubes within the cooler itself that have been sized to meter oil flow. When the engine oil is cold, and cooling is not required, the very small size of the tubes within the cooler restricts any great amount of oil flow. Conversely, as the

oil gets warm and thin it begins to flow readily. At this rate the cooler flows one-half gallon per minute at 60 miles per hour and keeps the operating temperature within reasonable limits. Under extreme test conditions they have shown a 45 degree F. temperature drop.

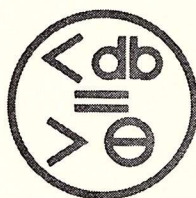
The basic reason for an oil cooler is to reduce the operating temperature of engine oil. The Buco/Hayden does just this without going to a lot of expense in acquiring the unit or trouble in installing it. The oil cooler retails for \$39.95, and installs with simple hand tools in less than a half-hour if you're a slow reader. Write for yours to, Buco Products, 7652 Burnet, Van Nuys, California 91405. ●

MAN WANTED

To show that you're a
MAN (Motorcyclist Against Noise),
pick up one of these free
LESS SOUND = MORE GROUND
buttons at your local participating
motorcycle dealership.

In the battle against the closing
of public lands to motorcyclists,
our sport needs the help
of every MAN in it.

Let's keep down the fences
by keeping down the noise.



Join the
Noise Pollution
Revolution

See your motorcycle dealer for this
free LESS SOUND = MORE GROUND button.



MOTORCYCLE
INDUSTRY
COUNCIL



PRODUCT EVALUATION

MODERN CYCLE EXAMINES AN INEXPENSIVE SOURCE OF ELECTRICAL POWER

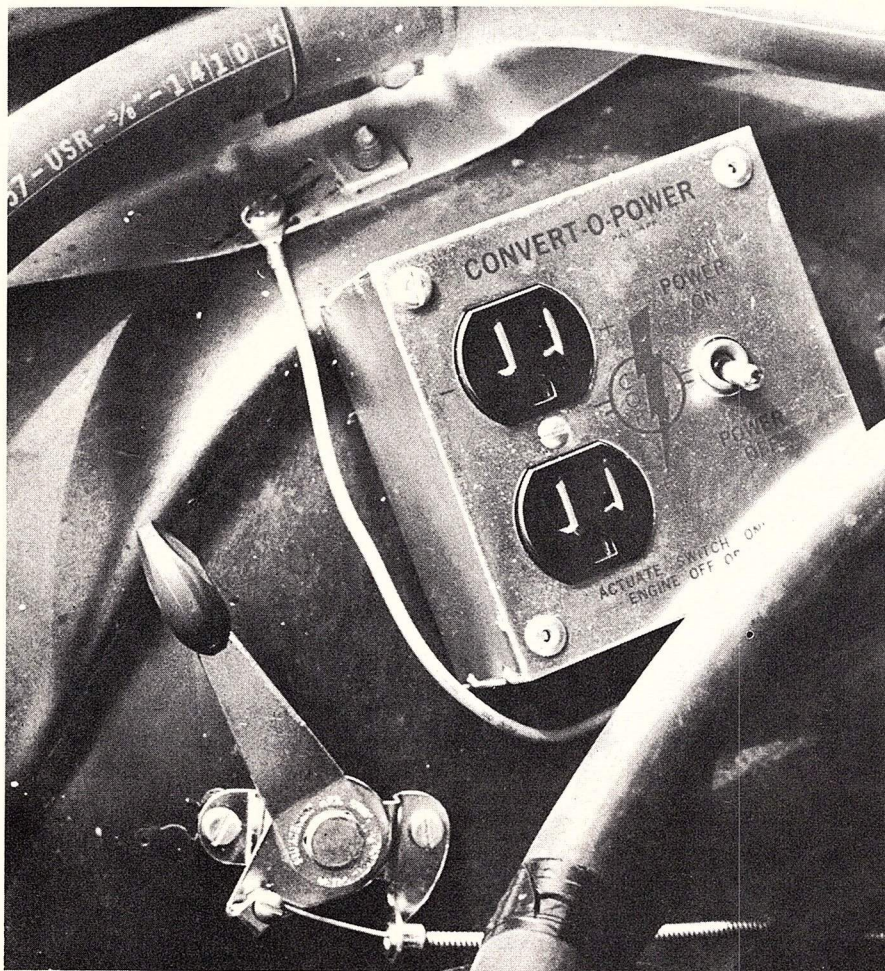
At one time or another it happened to almost every woods or off-road rider. A day of riding has been ruined because some small part has let go or some repair, requiring special tools, has been required. In the majority of these cases the lack of a source of electrical power has been the big hang-up. The times when the ability to use a soldering iron or electric drill motor could have saved a day of riding are probably astronomical.

Ironically, almost all recently manufactured vehicles already come equipped with an electrical generator. It's the alternator used for the 12-volt system. Inside the alternator are a number of diodes, windings and connections. As the alternator shaft spins the windings produce a constantly reversing or alter-

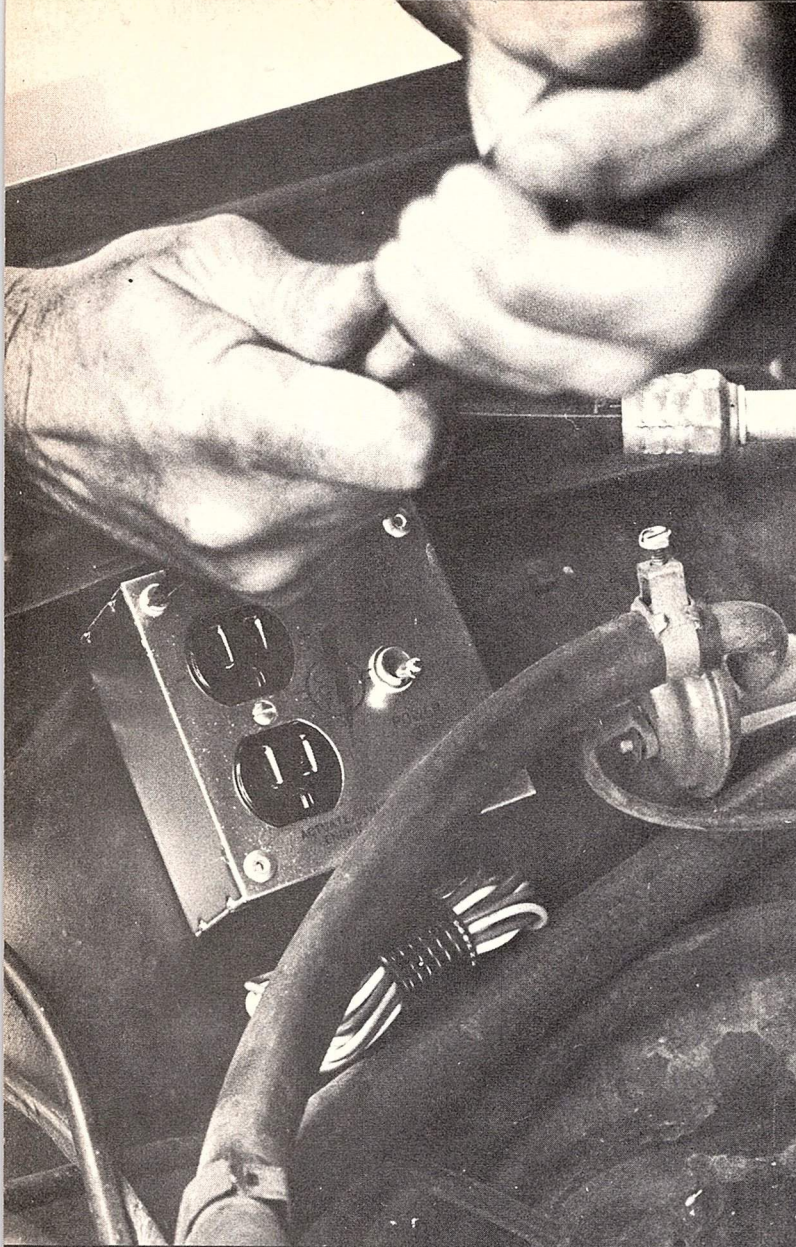
nating current which the diodes convert to direct current. The voltage required to maintain the battery is sent by the voltage regulator, which constantly adjusts the amount of voltage necessary to keep the battery properly charged.

The alternator is capable of producing voltages well above those required to maintain the battery. If the battery voltage were applied to the steel terminal and the regular is by-passed, the alternator will produce high DC voltage. To obtain a source of electricity in the boondocks it's only necessary to accomplish these ends. Someone has!

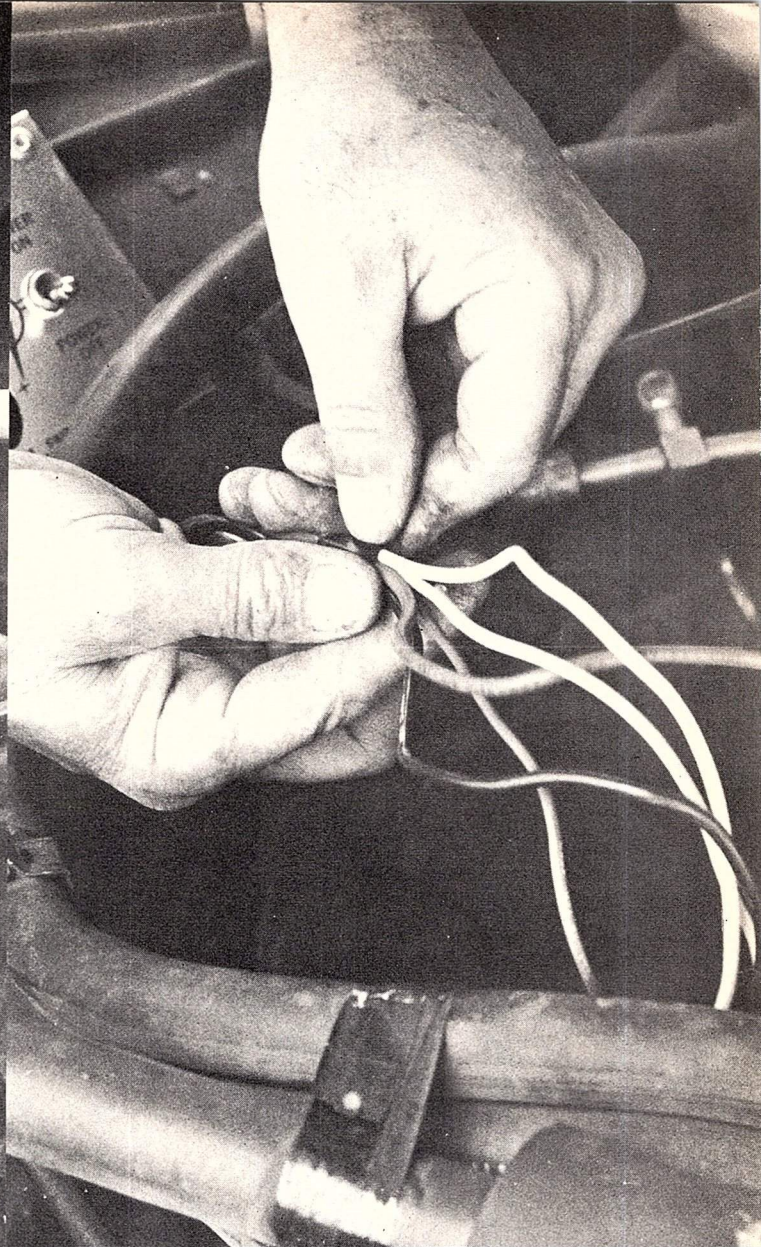
Convert - O - Power Manufacturing Company, of Torrance, California, markets a unit which provides the necessary controls and connections for supplying 3,000 watts or more of 110-115 volts



CONVERT-O-POWER



After choosing a convenient location in the engine compartment two holes are drilled and the Convert-O-Power unit is secured in position.

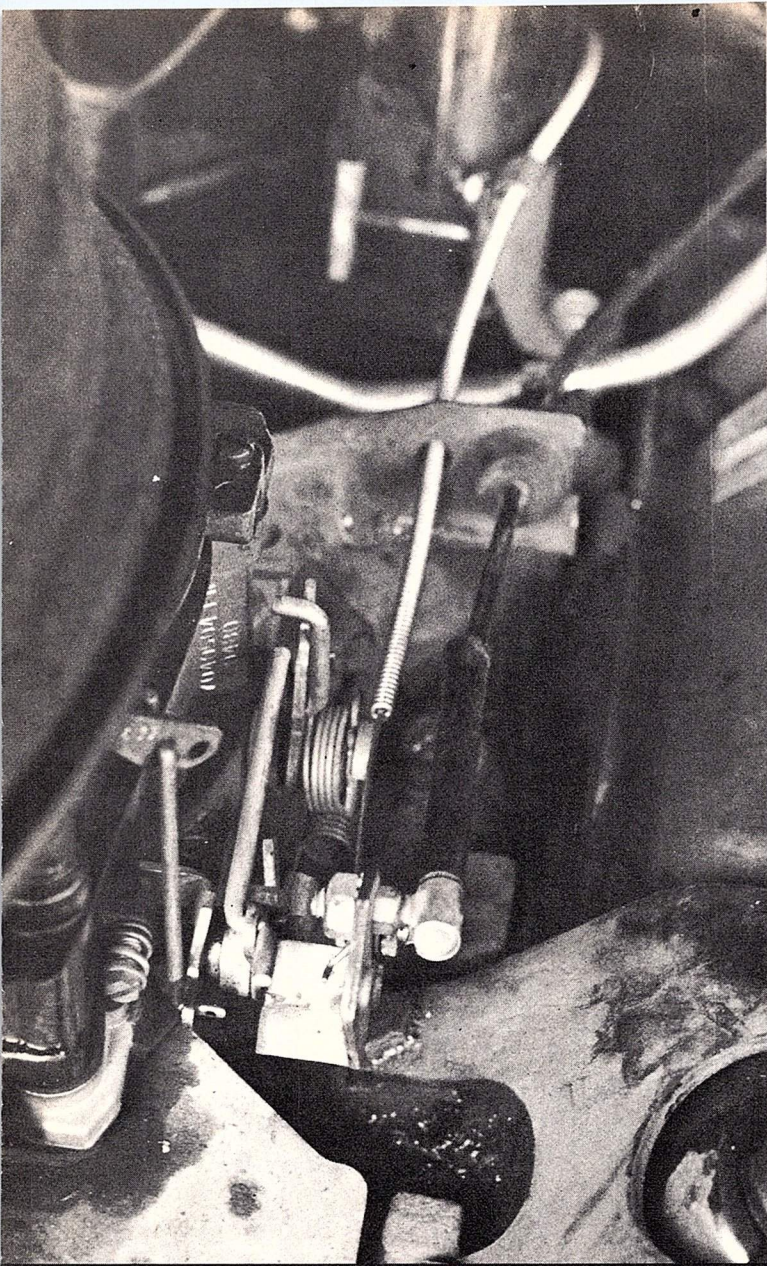


The instructions which come with the C-O-P unit are very explicit as to the manner in which the wires are connected. The instructions also warn that incorrect wiring will result in a severely damaged alternator.

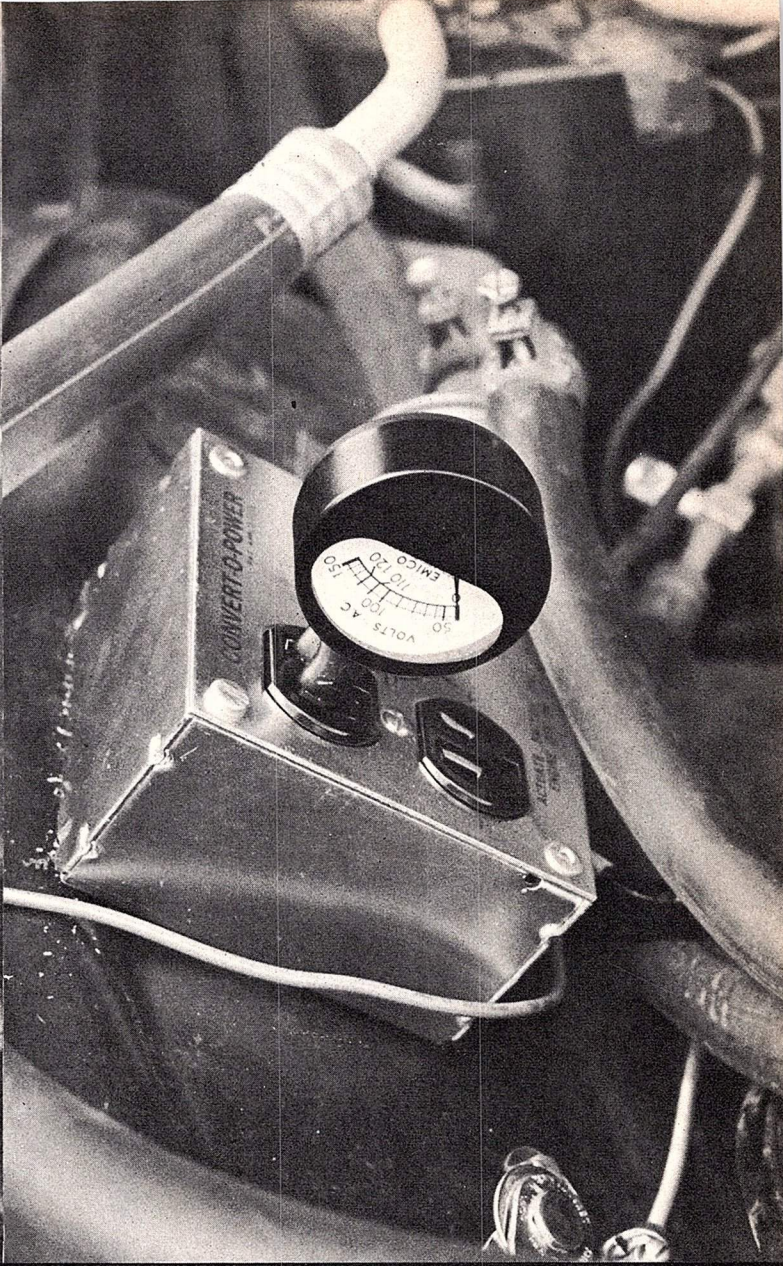
of power from an automobile's alternator. The unit is a small metal box with an external on-off switch and two regular electrical outlets. When the switch is in the "off" position, the car's 12-volt system operates in the normal manner. When the unit is switched to the "on" mode, the alternator is cut off from the car's electrical system and it provides DC voltage which, depending on the rpm of the engine, delivers from 25 to 125 volts.

The C-O-P is housed in a 4-inch square metal box with the two outlets and the aforementioned switch. All of the wires required for installation are over 30 inches long, giving some degree of latitude in the location in which the metal box is mounted. Installation should take, at the most, 30 minutes. Considerably more time is usually required to install the accessory hand throttle which allows the operator to adjust the rpm's of the engine. The

hand throttle is sold as an accessory item, as is the voltmeter which makes it possible to accurately adjust the output of the Convert-O-Power. The installation instructions which accompany the C-O-P are easy to follow and very explicit. These instructions point out that damage to the alternator will occur if the unit is improperly installed. The instructions also warn the owner not to leave the C-O-P switch in "power on" position when the engine is not



Once the Convert-O-Power unit is in position (a matter of about 20 minutes work), it's time to install the manual throttle. Care should be taken to insure that the manual throttle does not bind on the accelerator linkage.



The completed installation. The manual throttle control lever is mounted close to the C-O-P unit to allow accurate adjustment of the engine idle. The accessory voltmeter offered with the C.O.P unit allows the user to very accurately control the voltage output of the device.

running. This will result in a slow discharge of the battery, but will not cause damage to the alternator, battery or the Convert-O-Power unit.

Since the alternator produces direct current, through rectification of alternating current, fewer induction wound motors will not operate on Convert-O-Power. Only electrical appliances and hand tools certified as AC-DC will operate on C-O-P. Radios and televisions not labelled as AC-DC are for AC

operation only and will not work, as a matter of fact, these sets may be damaged. All portable power tools are AC-DC rated whether they say so or not and will work perfectly.

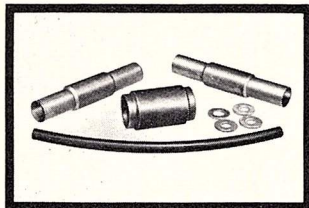
List price on the Convert-O-Power unit is \$19.95, the accessory manual throttle cable lists for \$4.50, and the plug-in voltmeter lists for \$7.35. The voltmeter plugs into one of the electrical outlets and, when not in use, it can be stored in the glove compartment.

Our test with the Convert-O-Power unit indicates that it meets all the claims made for it. It's a well-made unit which does the job, and it can certainly save a day of riding when repairs requiring power tools are needed.

More information on the Convert-O-Power unit can be obtained by writing to: Convert-O-Power, Box 4021, Torrance, California 90510. ●

ANOTHER QUALITY PRODUCT FROM

WEBCO



YAMAHA DT-1 LOWERING KIT

A simple, easy way to modify the frame of DT-1 model to make it the same as the new DT-2 M/X. Lowers the engine 1 1/4" and moves it back 7/8". The result is improved handling through a lower C.G. along with proper swing arm angle, plus improved relationship of seat to pegs. Includes full instructions for trouble-free installation.

#2248 \$14.95

Webco Catalog, 92 pages, still only \$1.00

SOLD THROUGH AUTHORIZED M/C DEALERS ONLY



WEBCO INC.

BOX 429 • VENICE, CAL. 90291

SUBSCRIBE

New MOTORCYCLE Service Manuals



\$5.95 Ea.

Both \$10.95

Money Back Guarantee

Send Check or Money Order and We Pay Postage

Technical Publications Div., Dept. MC-672
1014 Wyandotte, Kansas City, Mo. 64105

SSSTVROOM

Tired of wearing out batteries, arms and legs in hard-to-start cars, snowmobiles or motorcycles? Cold morning frustration's ended and you'll put a little V-r-o-o-m into your life with Instant Starting Fluid. Comes in both handy 4oz. and economy 11.13 oz. spray cans. Sssr a little in your aircleaner for the fastest V-r-o-o-m in town...

Petrochem
SEND 25¢ FOR SAMPLE

A fine family of products from
ASHLAND CHEMICAL COMPANY
quality products
DIVISION OF ASHLAND OIL, INC.
Santa Fe Springs, California 90670



MODERN CYCLE PHOTO CONTEST

Photographer Carl Hess calls this shot, "A Study In Parallels," and it certainly is! Note the way so many components on the bike "line up" with the trees in the background. For sending in the winning photo, snapped at a drag hillclimb sponsored by the Thunderbird Motorcycle Club of Columbia, Pennsylvania, Carl Hess receives a check for five dollars and a free one-year subscription to *Modern Cycle* Magazine.

All photos used become the property of MODERN CYCLE and cannot be returned. Contributors who wish unused photo to be returned must include a stamped, addressed envelope with the entry.

Nuts & Bolts

(Text continued from page 44)

bottom are proper. Their outlet is in the upper part of the can. Your paper filter will keep the water out of the engine. The only other alternative would be to seal the box off and run a snorkel to the top of your helmet!

Dear Sir:

Hi! I was reading your article "Tips On Tires" in the February issue of *Modern Cycle*. Could you please give me some advice as to which tire would suit my needs?

I have a Honda 500 with about 4,500 miles on it and the standard touring tires that come with it. I'm planning a trip to Mexico in April. Most of my riding consists of country roads. We avoid the freeways whenever possible. On the back roads my tires leave a little to be desired. My friend has a '69 BMW with a Dunlop "K70" on the rear and a Avon "MkII" on the front. I believe this is a rear tire, also. When we ride together his traction is much more superior to mine. I'm thinking of doing the same thing. Possibly two "K70s." What do you think? Would they fit my rims? Also, how would they improve the traction on my bike?

Anthony Martorella
San Francisco, Ca.

Two Dunlop K70s or even two Pirelli Universals would probably handle your needs very nicely. It's a shame, but most Japanese tires don't seem to contain as good of compounds in their rubber as the Europeans do indeed have.

Dear Mr. Ekins:

I have been studying your April, 1972 issue, article, "The Hundred That Could," pages 90 to 94 and it gives me ideas for one of my bikes.

I have a stock 1969 Yamaha CT-1 with a 4.00x18 knobby and 54-tooth sprocket. I have a Yamaha 90 for my son and a new Bultaco Alpina for my wife.

Could you make any recommendation for a trail rider to convert this CT-1 into a better hand-

ling machine? After comparing it to the Alpina I am sure there must be some things I could do to improve its handling without spending the money that Buckspan spent on his racing bike.

I use the CT-1 for desert play around El Mirage dry lake; never on the street. I love the bike for its easy maintenance (since I have to keep up 6 bikes altogether), and absolute reliability, seat comfort and general arrangements.

Would I be better to sell the CT-1 and buy another machine? What would you recommend to today for dirt use? Or what could be the best handling most comfortable 250cc bike on the market I do to the CT-1 to improve its handling?

Wayne R. Creed
Arcadia, California

Betor forks and Girling shocks would help it out a bunch; I don't like to recommend motorcycles, it's too much of a hassle.

Dear Sirs:

I am 14 years old, 5'3" and weigh 135. I'm thinking about moto cross racing. I read an article in your April issue, "The Harley-Davidson Baja 100 Impression." I was wondering if you had any information on how much horsepower the Baja has and if it would be much trouble to put lights on a 1971 Baja such as if you would need a battery or a different magneto or what? Could you also tell me how the Baja stacks up against the Kawasaki Green Streak 100 and Yamaha's M 100? Which one would be better for racing yet still be a good trail bike for weekends? I have raced a bike and have outgrown it and I was wondering how the Baja would do against the other bikes I mentioned because that's what everybody races around here.

Dan Provost
Lebanon, Oregon

'72 Bajas come with lights from the factory although because of the lack of a battery they're not legal in some states. I think at 5'3" you're a bit short for the tall Baja seat. For trail riding you want a broad power

(Please turn page)

Bill Wirges
KAWASAKI

COMPETITION ACCESSORIES

KAWASAKI TRIPLES



ON THE MOVE!

AT THE STRIP or ON THE STREET

Muffled Chambers	\$140.00
Heavy Clutch Springs	\$4.95
Velocity Stacks	\$16.95

CHECK OUT ALL OF OUR KAWASAKI COMPETITION ACCESSORIES, DYNO-TESTED QUALITY PRODUCTS.

CATALOG \$1.00 Refundable on your first order.

SEND TO CREATIVE ENTERPRISE, BOX 204 R. R. 2, PRINCETON, ILL. 61356 Phone 815-879-7651


LATEST

FLANDERS

CATALOG

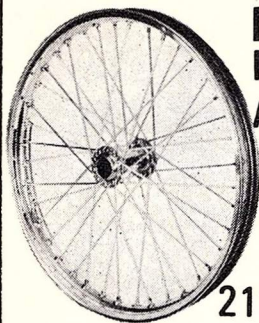
STUFFED WITH NEAT THINGS FOR BIKES!

124 Page Catalog
7 Assorted Stickers
\$ 1 Off T-Shirt Offer
\$ 3 For the complete pack postpaid!



**P.O. Box 2297 D
Pasadena, Ca. 91105**

WHEELS



Chrome Plated

Now

Available

16"-17"

18"-19"

\$49.95

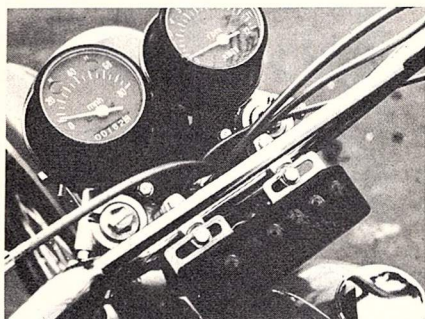
21" **\$59.95**

Custom Spool Hub with Bearings Laced and True Complete with Tire and Tube **\$49.95**

NORTH AMERICAN IMPORTS

2325 Cerro Gordon—P.O. Box MC
Mojave, Calif. 93501
(805) 824-4261
Dealer Inquiries Invited

Shift-O-Lite



The original lighted gear indicator

NEW ★ USEFUL ★ FUN

- ★ Avoid lugging your engine
- ★ Avoid extra "foot" activity
- ★ Excellent for experts
- ★ A must for beginners
- ★ Quality thru-out
- ★ Low price—\$24.95

Honda's only—100cc and up. Send Model and Year—70' 750's (specify early or late model). Check or money order—California residents add 5%.

K&S Enterprises
20102 State Road
Cerritos, Calif. 90701
(213) 860-1377 Dept. MC

— Dealer Inquiries Invited —

Nuts & Bolts

continued

band, the Baja has this and so should the Yamaha MX '72 model with a reed valve. I'm not sure about the Kawasaki. The Baja will take inch shorter shocks and the seat can be cut down until you have a 30-inch distance from the seat to the ground. I think the Kawasaki has the shortest saddle height of the bunch. Now that I've got you totally confused I'll leave.

Gentlemen:

In your April, 1972 edition, "Nuts & Bolts," you published a letter from Steve Duermyer concerning a spark plug problem he is having with his Yamaha 350cc R5B. Owning the same bike and having the same problem, and having the dealer tell me the same thing (also an NGK peddler), I switched to Autolite AE22 spark plugs and wow what a difference! Please pass this information on to Steve or give him my address and ask him to contact me. I'd like to know how he made out with your suggestions.

Mike Wilson
Philadelphia, Pa.

Thanks for your letter Mike, we tried the AE22s recently ourselves. The R5Cs are having a wetting problem currently and some of these CDI bolt-on voltage increasers look like the answer.

Dear Sir:

I plan to buy my first bike this summer and as of now have in mind a Suzuki 185 Sierra, but I may not have enough money to buy the bike and the usual requirements, helmet, insurance, etc. I wonder if a 125cc machine would carry me in the rough as I am 6' 3" and weigh 230 pounds, or if I should wait for more money and buy a 250cc off-roader?

Any help you can give me would be greatly appreciated.

Tom Boley
Tulsa, Oklahoma

Dear Large Tom:
Hold off for the 250.

CYCLE POLLUTED?

Try **SIMICHROME** best for alloy, chrome, plastic. \$1.00 per tube, comes in 250 gram cans, too. At most dealers. **BLUE AWAY** pipe cleaner \$1.80 per bottle. Dealers: Make \$\$ with these. Write:

COMPETITION CHEMICALS

BOX 141, IOWA FALLS, IOWA 50126

CHROME PLATING

TRY OUR FAST SERVICE
FOR YOUR TRIPLE CHROME
PLATING NEEDS

GRAVES PLATING CO.

P.O. Box 1052, Florence, Ala. 35360
Phone 205/764-9487

• Serving the Southeast Since 1945 •

SUBSCRIBE



Special Motorcycle cam literature and decal... 25c
14754 Calvert St. • Dept. MC • Van Nuys, Calif. 91401
(213) 873-4846 • (213) 780-1102

RIDER and WORKSHOP MANUALS

AJS/Matchless; Ariel; BSA; Ducati; Honda; Harley; Heinkel; Indian; Jawa; Lambretta; Norton; NSU; Pannonia; Puch; Royal Enfield; Sunbeam; Suzuki; Triumph; Velocette; Vespa; Villiers; Vincent; Zundapp.

"Parts and accessory catalog \$3.50"

TRIANGLE

2157 West Harrison Street
Chicago, Illinois 60612

When you think motocross —
Think

MAICO

Then call or write — we'll tell you where to get YOUR WINNER!

COOPER MOTORS 110 E. Santa Anita Ave. Burbank, Ca. 91502	213/849-6066
DEBENHAM IMPORTS 887 Main St. Antioch, Ill. 60002	312/395-3205
EASTERN MAICO Royal & Duke Sts.	717/667-3987 Reedsville, Pa. 17084

The last light has finally flickered out on the "Bewitched" set; a blessing, because they've been on since around seven this morning. Suddenly, you're as wiped out and wound up as only being on a movie set for 12 hours can make you. So what do you do to relax and ease the tension? Well, if you are Kasey Rogers, who plays Louise Tate, the boss's wife, on the popular television series, you go home and slip into something comfortable (such as a sparkling white protective helmet), and swing a shapely leg over the saddle of a gleaming root beer colored Honda. You then push a button to activate a throbbing 500cc power plant, aim it toward Mulholland Drive, and split for the beach. Now you let the combination of the crisp wind on your face, a broad carpet of twinkling lights far below on each side of you, and powerful bike at your command work their magic therapy as you cruise along the spine of the Southern California hills.

At last you are by yourself; you've escaped the hub-bub that is Hollywood, for a while at least. The fast rushing night washes away the mental grime and you are able to get your head back together. This is where it's at!

If you have somehow gotten the impression that actress Kasey Rogers digs motorcycles, it's only because she does.

What makes the Kasey Rogers love affair with motorcycles even more interesting is the fact that a year ago at this time she had not even started to ride. How do you go from zero to 500cc in 7 months?

It wasn't that she had not been exposed to motorcycles, as there

KASEY ROGERS



THE LADY LOVES TO RIDE

There's not another feeling in the world to match that of taking a jump on her Rickman. The pad on her knee is the result of a difference of opinion with an unfamiliar bike.



were a couple of them around the house. Back in August of 1970, she bought a Honda 175 for her husband, Bud. Then for Christmas of that year she got a Honda 50 for her son, Michael. There were three horses around for transportation, but Kasey figured he would dig something with a little more zip.

Then last summer she began to get personally involved with the sport by spending some time on her husband's bike, and it was almost a classic case of love at first ride. Her first ride on the dirt had her so pumped up that she thought she wouldn't come down for a week, and actually, where motorcycling is concerned, she hasn't come down yet.

From here it was just a short step to her first street machine, a pretty, metallic brown, 500cc Honda Four—a lot of motorcycle.

This choice of a "starter" bike was just the first indication that Kasey was serious about riding, and was not at all squeamish about riding them. The second indication came just a couple of

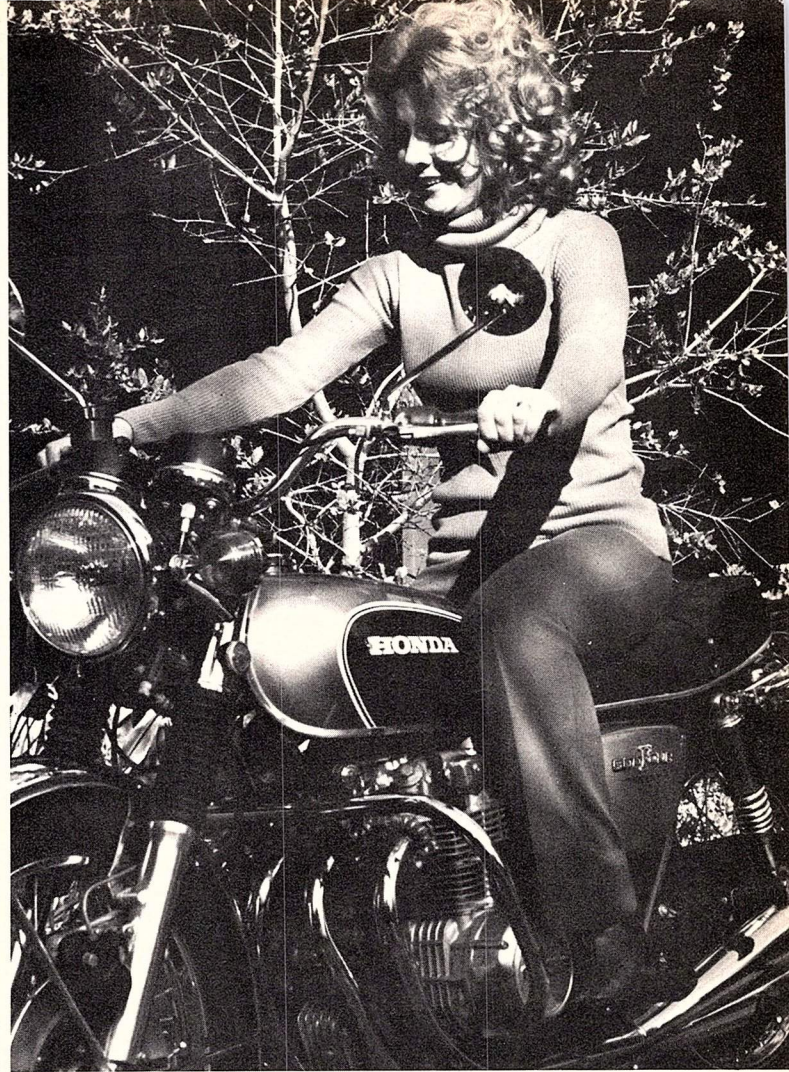
months later, when she and a dirt bike had a slight difference of opinion as to which way they should go. Even as headstrong as pretty red-haired ladies can be, the bike was able to out-horsepower her, and she had to take it down. She got right back up, but when her knee began to resemble a basketball about an hour later she knew it was time to pack it in. This little diversion managed to "put her on the trailer" (as they say in the old racing biz), for about 3 months. Did this experience rattle her? No way! All she did was to go out and get her own dirt bike, a nifty 125cc Rickman-Metisse Zundapp. Her only concession to the mix-up was that never again will she trust an unfamiliar mount, she knows how the Rickman will behave. And you get the impression from the way she says it, that it had sure better behave. They shoot motorcycles, don't they?

Actually, to call Kasey Rogers an actress doesn't really do her justice, and in fact short changes her just a bit. This is a most ver-

satile lady, whose talents include acting, writing, and homemaking. Her hobbies include all of the aforementioned with traveling thrown in.

This is not to say that acting is not a big part of her life, because it is now and always has been. How long is "always" in this case? Kasey fields that question with the combined "politico-athletic" dexterity that would make a Sam Yorty or an O. J. Simpson proud. "Just say that I've been involved with acting for all my adult life," is the way she nimbly puts it.

Kasey's interest in acting led her to appear in many of the high school plays, of course, but she never really had what you would call "formal" training in theatre arts. Her discovery was basically quick and simple. Someone happened to see her, liked the results of the screen test, and about a week later, she was given the lead in her first picture. She originally started with Paramount, and this proved to be the springboard for



quite a successful career before the cameras.

Kasey Rogers was in the original "Peyton Place" cast, from the pilot, through over 2 years with this highly successful show. She lists her role as Betty Anderson's mother on the series as probably the highlight of her career. The whole "Peyton Place" cast developed a cameraderie over that time that she truly enjoyed and valued. Sometimes you assemble to make a picture or series, turn it out, and head for home without really getting to know anyone, or even caring to. But this particular cast was a close-knit group, and the whole experience turned out to be quite rewarding.

From "Peyton Place" it was onto the "Bewitched" show. This has been Kasey's main screen "home" for the past 6 years. She plays the role of Louise Tate in the series. For the first 5 years she appeared as dark-haired, but this past season she appeared in her normal, pleasant copper-red.

Television has only been one facet of her bag, of course, and

in addition to making several commercials, she has found time to appear in 25 feature length films as either lead or second lead. She recently appeared in "Lost Flight" for Universal. It was filmed in Hawaii, and was designed especially for television, but will be released to the theatres as well. She has also appeared on other television shows, such as "The Bold Ones." So as you can see, acting is very much a part of her life.

But as we said, it's only one part. How long will she continue to act? "Probably forever, as long as it doesn't conflict with other important parts of my life." These "other important parts" include her writing, her travel, and most of all, her family.

How does Kasey Rogers compare acting to motorcycling? She feels that acting is very rewarding, but a bit more limiting than the freedom you enjoy on a bike.

As with the other segments of her life, Kasey's writing covers a broad spectrum, from poetry to screen plays. She has also writ-

ten several newspaper, magazine articles, and feature stories, and along with her husband (who is the head of The Lewis Company, Ltd. Public Relations Counsel), she is about to embark upon her most ambitious literary pursuit.

To this point, there has never been a definitive study made of the Yucatan Peninsula, so Kasey and Bud are going to help collaborate on just such a project. It will take much research, photography, and time, but the end result should be "far out" for those with an interest in that area.

An interview with Kasey Rogers can be summed up in one word—fun. One of the reasons for this is her broad range of interests and knowledge of them, and another is her lively, vivacious and most certainly feminine approach to them. But most important is that she is a "straight shooter," no put-ons, no phony airs. Kasey is just a very nice woman.

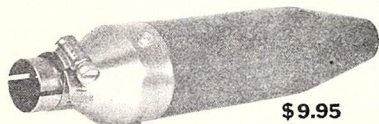
The other major part of her life, and possibly the most important, is that of being a successful mother. And almost in-

THE GRIPPER FOOTPEG



Available For
CZ Maico
BSA MX Montesa
Hodaka Ossa
Honda Penton
Husky Suzuki
Kawasaki Yamaha

The Grippers are Custom Designed for each cycle. The Grippers are guaranteed in writing against breakage.



\$9.95

THE QUIET POWER SILENCER

Available In
Following Core Sizes
3/4 inch 1-1/16 inch 1-7/16 inch
7/8 inch 1-1/8 inch 1-1/2 inch
15/16 inch 1-3/16 inch 1-5/8 inch
1 inch 1-1/4 inch 1-3/4 inch
1-3/8 inch

- Lightweight 8 oz.
- Core Size same as Stinger Size
- No back pressure!
- No power loss!
- Steel head for strength
- Streamlined styling
- Competition proven
- Rebuild kits available

Available at Better Cycle Shops
or Order Direct from:

"Creators of Quality Motorcycle Accessories"

HOSS INDUSTRIES

P.O. Box 154

Berea, Ohio 44017



credibly, when you consider her schedule, she has taken time to raise three very pleasant children, Michael (10) Monica (12), and Mona (15). And in an era when being the mother of teenagers qualifies as one of the scariest professions around, she has been able to guide each of them along their different paths without having to use a "whip and a chair." But on listening in to the late afternoon dialogue as each go out to "do their thing" after school, there's not even the remotest question about who's boss. On this particular afternoon, Mona, the family shutterbug, was going out to take some pictures; Monica was on the way out to get provisions for a party for 22 people; and Michael was busy working on his bike. They were all to be back by 5:30, and there wasn't one single "aw, Mom" to be heard.

Actually, the family allegiance is a bit split over "real" horsepower and brake horsepower. Bud and the two girls enjoy riding the three horses stabled just outside the Encino home, while Kasey and Mike would just as soon hitch her new three-bike trailer to the car and split for the desert.

What does Kasey Rogers really think of motorcycling? She thinks that it is just about the healthiest thing going right now. She sees

(Please turn page)

THE FINEST MOTORCYCLE CLOTHING IN THE WORLD

Langlitz Leathers

The finest custom made leathers for the pleasure or sport rider. Factory direct only. Catalog available.

Langlitz Leathers

2443 S.E. DIVISION, PORTLAND, ORE. 97202

EXCLUSIVE SPARE PARTS in U.S.A.

For White 250cc & 125cc Cycles

Parts also for all models Horex, Pannonia, Danuvia, Heinkel, and Foreign Makes.

FOREIGN MOTORCYCLES CORP. Hickory 6-8452
48-22 43rd Avenue · Long Island City 4, N. Y.



YAMAHA OWNERS 125 & 175
Add 10 to 13 h.p.

Send \$1 for specifications & cost

To: International M/C, Inc.

7233 Canoga Ave. Box MC

Canoga Park, Calif.

(213) 346-0900



POLISH MOTORCYCLES AND PARTS — WSK

Exclusive spare parts for: White 125 and 250cc, Horex All Models, Pannonia, Danuvia, & Heinkel Scooters.

FOREIGN MOTORCYCLES CORP.

48-22 43rd Avenue

Long Island City, New York 11104

Hickory 6-8452

SSSTVROOM

Tired of wearing out batteries, arms and legs in hard-to-start cars, snowmobiles or motorcycles? Cold morning frustration's ended and you'll put a little V-r-o-o-m into your life with Instant Starting Fluid. Comes in both handy 4oz. and economy 11.13 oz. spray cans. Sssr a little in your air cleaner for the fastest V-r-o-o-m in town...

Petrochem

SEND 25¢ FOR SAMPLE



LATEST FLANDERS CATALOG

STUFFED WITH NEAT THINGS FOR BIKES!

124 Page Catalog
7 Assorted Stickers
\$ 1 Off T-Shirt Offer
\$ 3 For the complete pack postpaid!



P.O. Box 2297 D
Pasadena, Ca. 91105

MISS MODERN CYCLE CONTEST

dollars and a one-year subscription to *Modern Cycle*. If you want the picture back, be sure to include a stamped, self-addressed envelope.


Got a pretty gal and a good looking motorcycle? Put the two together in the best photo you can take and enter it in the Miss Modern Cycle competition, a regular feature in every issue.

If your photo is one of those chosen for use in the magazine, you'll receive five



The winner in this month's Miss *Modern Cycle* Contest is Barbara Lowe of Tucson, Arizona. Barbara's husband, Jerry Lowe, submitted the winning photograph along with the information that Barbara is the mother of three boys, and a very enthusiastic road and trail rider. For sending in the winning picture Jerry receives a check for five dollars and a free one-year subscription to *Modern Cycle* Magazine.

Are You Out Of It?



If you're still waiting months to find out what's happening in the fast-moving world of motorcycling, wake up!

Get up-to-the-minute news when it's still news in

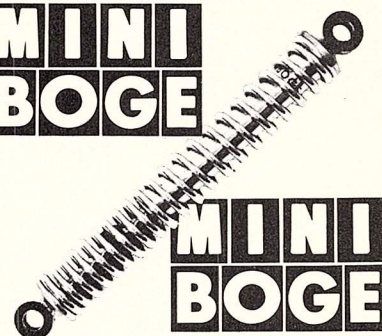
CYCLE NEWS

Now 3 great editions - EAST, WEST, & DIXIE. Send for free sample of *your* edition. Enclose 25¢ for postage and handling.

CYCLE NEWS
Circ 5T
P.O. Box 498
Long Beach, Ca 90801

EXCLUSIVE FOR YAMAHA MINI ENDUROS

MINI BOGE



MINI BOGE

The famous BOGE shock absorber, patented in Germany, is now available for competition mini Enduros.

FEATURING:

- Special inner valve unit that gives improved double dampening action
- Beautiful chrome plating
- 55 lb. springs
- 3/8" hard chrome rod
- 10" length
- 2" travel
- 3/8" bolt diameter

\$29.95 A PAIR
PLUS TAX

DEALER INQUIRIES INVITED

moto imports, co.

172 FREEDOM AVENUE	4932 SHARP STREET
ANAHEIM, CALIF 92801	DALLAS, TEXAS 75201
714/870-5243	214/631-7056

Yankee Full Bore BOOTS

Moto Cross and ISDT Models
now in stock for immediate
delivery.

(ISDT MODEL SHOWN)

16 inches high
with fully
padded ankle
and shins.

Genuine
Vibram soles.

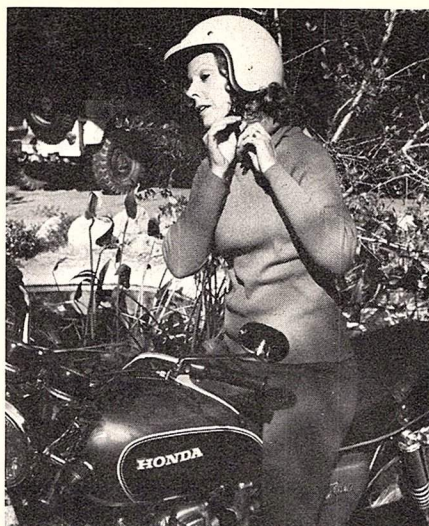
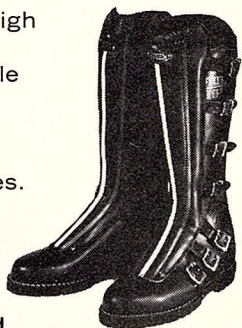
Half Sizes
7 to 14.

\$74.99 Prepaid
Add approx. \$3.
for C.O.D.

MX model features smooth
sole with turned-up toe.
When ordering this boot, add
1/2 size for proper fit.

CHESTER BOOT SHOP

43620 Van Dyke Dept. MC
Sterling Heights, Mi. 48078
(313) 739-3323



it as a challenge, and more im-
portantly, it's her private office,
away from all of the phones and
people who tend to press in on
you when your business is Holly-
wood.

For her, dirt riding especially
is just a blast. It is an exhilarating
experience that leaves her "high."
And the feeling she gets from
negotiating a jump on her Rick-
man is one she gets from few
other things.

Kasey honestly feels that trad-
ing in her subscription to "Wo-
men's Wear Daily" for a set of
wrenches was one of the best
things that she has ever done.
But she feels just as strongly, too,
that a girl can still be a girl and
ride a motorcycle. And make no
mistake, Kasey Rogers is all girl!
She also feels that the sport
of motorcycling is becoming more
socially acceptable and would
like to be able to do as much as
she can to help foster that good
image. Kasey Rogers just loves
motorcycling!

So whenever the phone starts
ringing off the hook, and after
leaving her studio lights (with
their attendant pressures) behind
her for awhile, Kasey knows she
can get away from it all again.
The copper tresses then disap-
pear beneath the helmet, the dis-
tinctly feminine hands slip into
the leather gloves, the beautiful
500cc Honda is coaxed to life
with a throaty rumble, and Kasey
dials it on and is off in her own
private world.

Normally, this would be a lot
of motorcycle for a lady; but it's
alright, because Kasey Rogers is
a lot of woman.

POWROLL PERFORMANCE
POST OFFICE BOX 926F8
CALL (503) 382-4395
BEND, OREGON 97701

1100cc
for your
750 Honda
... as much as
108cc for Mini's!

WE HAVE RICEPS
FOR EVERY
HONDA MODEL!

HONDA MUSCLE

PUNCH IT HARD Your Honda's full of fight with a
Powroll power package! Easy-to-bolt-in muscles
for every model. Just ask any Powroll owner
(if you can catch one!). Or send for our complete
catalog, \$1.25 cash or money order. Details on
equipment for your Honda
only, 50c (tell us year, model).

Exclusively specializing in

HONDA Parts!

& accessories for all makes & models

**1-DAY MAIL ORDER SERVICE ANY-
WHERE — AIRMAIL IF REQUESTED**

Send year, model, engine & frame
no. with all orders. Write for free
list of all Honda Repair Manuals
and Parts Catalogs.

THRIFTY LAD HONDA, DEPT. MC8
2411 Lincoln Bl., Santa Monica,
Calif. 90405, (213) 392-3066

MICHELIN

Motorcycle Tires
and Tubes

imported and distributed by

WESTERN SCOOTER DISTRIBUTORS
1599 Custer Avenue
San Francisco, Ca 94124
(415) 647-5520
Write for nearest dealer

YAMAHA PARTS

**WORLD'S LARGEST STOCK OF
YAMAHA PARTS & ACCESSORIES**

Now! Mail order service for
genuine Yamaha parts and
accessories. 24 hour service
from one of the world's larg-
est Yamaha dealers.
If we don't have it, it ain't!

Send 50c for our accessory catalogue and list
of genuine Yamaha parts and service manuals
available. Rush shipped same day order is
received. Includes all Yamaha models, street
and dirt, back to 1961 bikes.

INTERNATIONAL M/C INC.
7233 Canoga Ave., Dept. MC
Canoga Park, Calif. 91303
(213) 346-0900

WHOLESALE ONLY

Chrome Sissy Bar

1/2" • 5/8" • 3/4"
x 28" • 36" • 40" • 60"

With All Fittings

Chrome 7/8 and 1" Handlebars
With 3-5-8-9-10-15-18-20" Rise

Drag Bars, Round Square Shape,
Reach Bars, Drop Bars • Detroit
Specials • Cross-Country Bars
Mens' & Ladies' Black Leathers •
Jackets & Pants

Colors On Order Same Price

Fibre-Glass Tanks & Fenders
Windshields • Safety Bars
• Saddlebags

KEHOE & CO., Dept. M.C.
30119 Champine Dr.
St. Clair Shore, Michigan 48082
(313) 771-6325

Catalog—\$2.00 on your letterhead

**This Suzuki
world champion 250
costs \$15,000.**

**We'll sell you
the closest thing to it
for \$899.**



The world champion 250 is a Suzuki RH-71.

And even if you could raise the money, we wouldn't sell it to you. We need it to go after our third straight world motocross championship.

But we will sell you a Suzuki TM-250. Which, for \$899* (plus taxes and any delivery/dealer preparation charges) is a lot less in price.

And not that much less a machine.

Because it was designed after the RH-71: so you know the TM-250 delivers.

It flies off the line. Thanks to 30 horses, a lusty 21 ft.-lbs. of torque, and only 220 lbs. of bike.

It's ready to race too. As is, out the showroom door.

Knobbys (21" front, 18" rear). Plastic fenders. High-performance expansion chamber. 5 speeds. CCI automatic lube. Racing forks and suspension.

The TM-250—it can make you what it already is: a champion.

In the U.S. you can find the Suzuki dealer nearest you for free. Dial 800-631-1972.

U.S. Suzuki Motor Corp., 13767 Freeway Dr., Dept. 8013, Santa Fe Springs, CA 90670.

In Canada, Radco Sales, Ltd., 1107 Homer St., Vancouver, B.C.

Member: Motorcycle Industry Council, Inc.



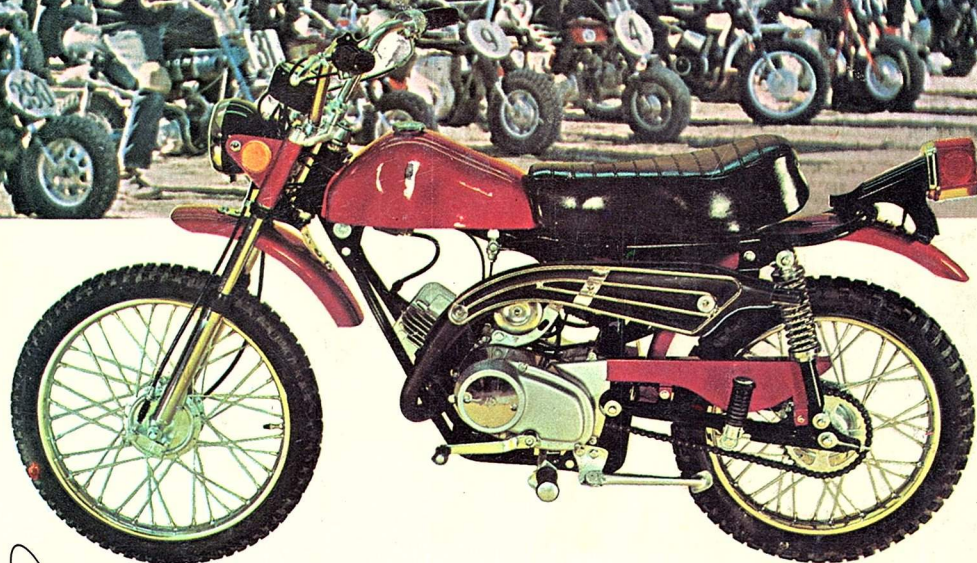
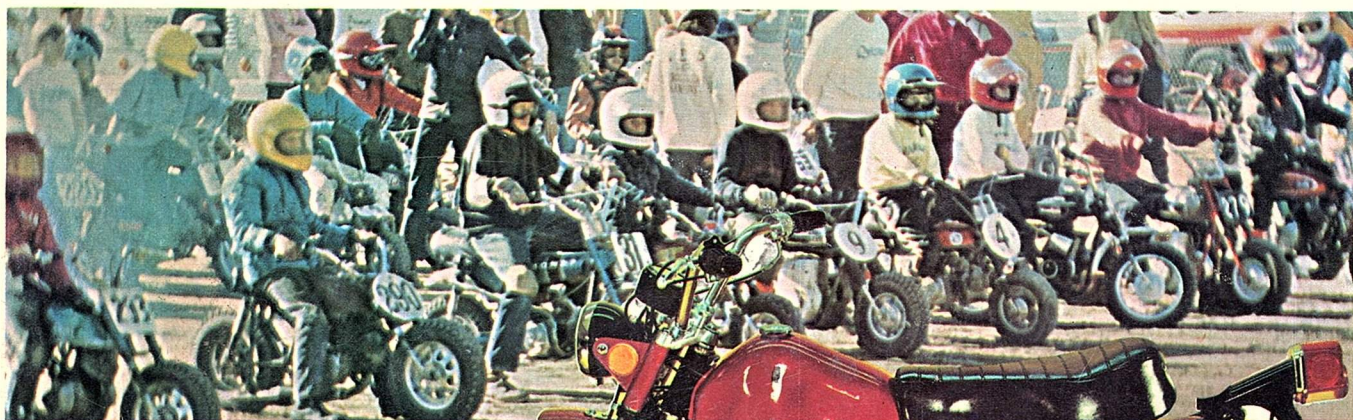
*Price subject to change without notice.

Suzuki: built to take on the country.



ST

has a nice sound...



today  **emini** knows it well

The checkered flag is the name of the game... and a new name is getting it more and more... and that name is GEMINI. In a few short years the Gemini family of mini cycles has come up fast... with its 50cc and 80cc models loaded with power tied on to rugged frame construction that won't stop... and brakes that will, gives these machines speed and power that won't quit. Today Gemini takes nobody's dust in the mini cycle field... NOBODY'S.

 **emini**
15514 S. Figueroa, Gardena, Ca 90247

THE SAN TONG CO. INC. U.S. AND CANADIAN IMPORTERS
OF THE GEMINI MINI CYCLES AND MOTORCYCLES

DEALER INQUIRIES INVITED